attix5 PRO

Server Edition

V8 Peregrine User Manual

for Microsoft Windows

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Instruction Symbols

The following icons appear in the document:

Note: The information icon precedes important additional information.

Example: The example icon indicates a practical illustration of a process or procedure.

Tip: The hint icon indicates a suggestion or hint to guide or assist users performing a task.

Warning: The warning icon provides a warning against potential mistakes and actions that could cause critical error.

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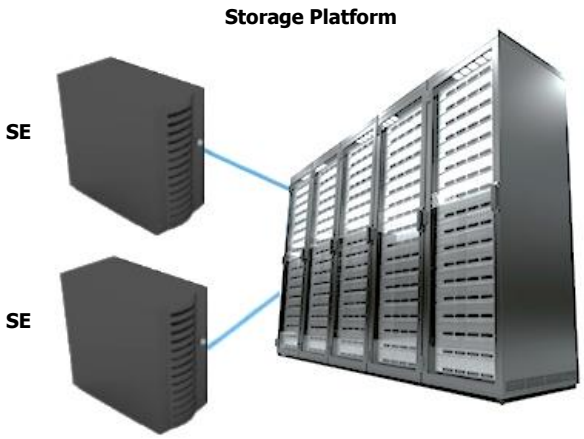
Introduction

Congratulations on choosing Attix5 Pro Server Edition. Attix5 Pro minimises risk, maximises productivity and allows businesses to regain control of their most valuable asset - their data.

For technical support, please go to **Help > About Attix5 Pro SE**, and then use the contact details provided.

Product overview

With Attix5 Pro Server Edition (SE), data stored on servers and databases can be backed up to a Storage Platform quickly, securely and automatically.



The following diagram illustrates the scenario:

Files and folders stored on one or more servers running SE can be backed up to a Storage Platform. In the event of data loss or corruption on the server, you can retrieve data from the Storage Platform and restore it to the original or another server in just a few easy steps.

A Backup Administrator can manage the entire backup environment (Backup Clients and the Storage Platform) remotely, using the Attix5 Pro Storage Platform Console. For more information, please refer to the **Attix5 Pro Storage Platform Console User Manual**.

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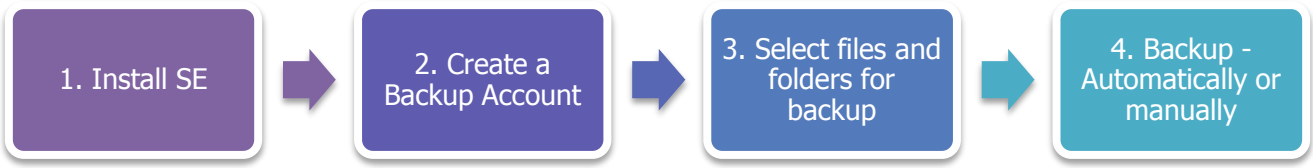
1. Getting started

Enabling manual or automatic backups is easy with Attix5 Pro Server Edition:



2. Installation

For the latest system requirements and compatibility information, please refer to the **System Requirements and Compatibility Matrix**.

The SE MSI file contains pre-configured information to make installing SE quick and easy. For more information on creating MSI files and launching them from the **Run** Command, please refer to the **Attix5 Pro Storage Platform Console User Manual**.

Note: The options available during the installation process depend on the settings enabled by the administrator when the MSI file was created. These options range from advanced install settings to specifying the install location. The default install path is: C:\Program Files\Attix5 Pro SE.

Warning:

- *If running antivirus software, please ensure that all Attix5 Pro folders are excluded from antivirus scans to avoid data corruption.*
- *Both antivirus software scans and backup processes are resource-intensive. It is advised not to run a backup and virus scan at the same time as this will significantly decrease machine performance.*
- *Windows will check whether you are running the MSI file suited to the installed operating system (i.e. 32-bit or 64-bit) and will not allow you to install the wrong version.*

To install Attix5 Pro SE:

1. Run the MSI file.
2. In the Attix5 Pro SE Setup Wizard that appears, follow the steps as described below.

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Attix5 Pro SE Setup Wizard

The Attix5 Pro SE Setup Wizard typically consists of five steps to guide you through the Setup task in a simple, step-by-step manner.

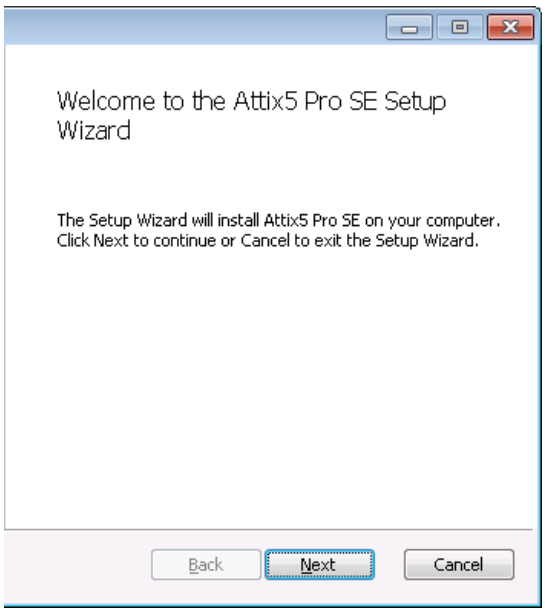
Note:

- *Some of the settings described below may have been removed when the MSI was created. Furthermore, the wizard may contain additional steps. Please read each window carefully before continuing.*
- *If you receive a Windows User Account Control message, asking you if you wish to allow the Attix5 Pro program to make changes to the computer, click **Yes** to proceed.*

Step 1 of 5: Start the Attix5 Pro SE Setup Wizard

To start the Attix5 Pro SE Setup Wizard:

Click **Next**.

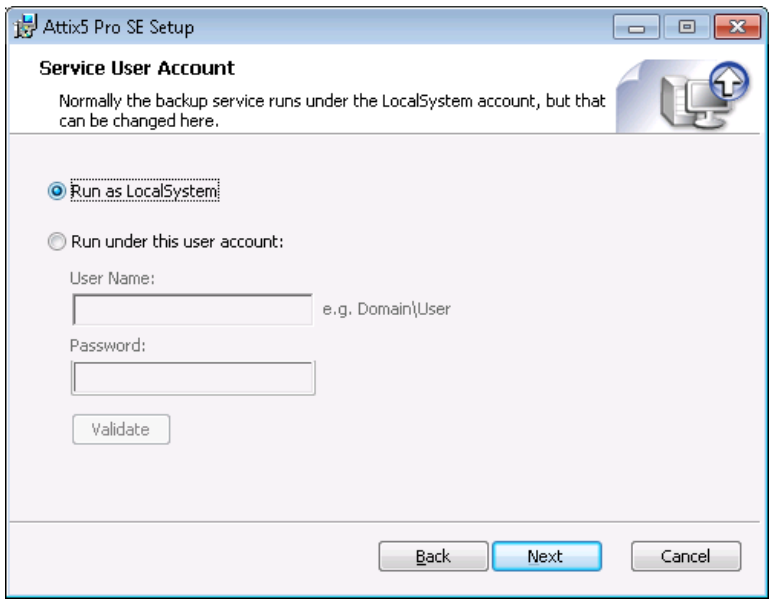

Welcome to the Attix5 Pro SE Setup Wizard
The Setup Wizard will install Attix5 Pro SE on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel

Step 2 of 5: Specify a Windows user account

To enable the Backup Client to read all files that must be backed up, it may be necessary for the Backup Client service to run under a specific Windows account.

To specify which Windows account should run the backup service:

- Select Run as LocalSystem.
- Alternatively, specify a specific Windows user account:
    1. Select Run under this user account.
    2. In the **User Name** box, type the Windows user name for the account.



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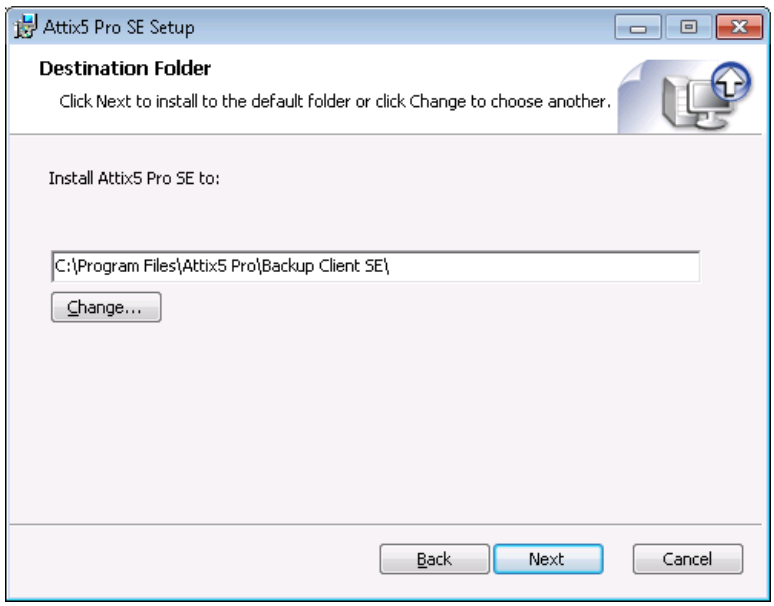
3. In the **Password** box, type the Windows user account password.
4. Click the **Validate** button.
5. Once the Windows user account has been validated, click **Next**.

Warning: Please ensure that the user account specified in this step has full access to all files to be backed up. If files are included for backup that the account does not have access to, a "Some files were skipped" or "files skipped" error message will display in the backup logs.

Step 3 of 5: Specify an install location

To specify a destination for the SE application files and folders:

- Click **Next** to accept the default destination folder and continue to the next wizard step.
- Alternatively, specify a new destination folder:
    1. Click the **Change** button.
    2. Browse to the folder.
    3. Click **OK**.
    4. Click **Next** to continue to the next wizard step.

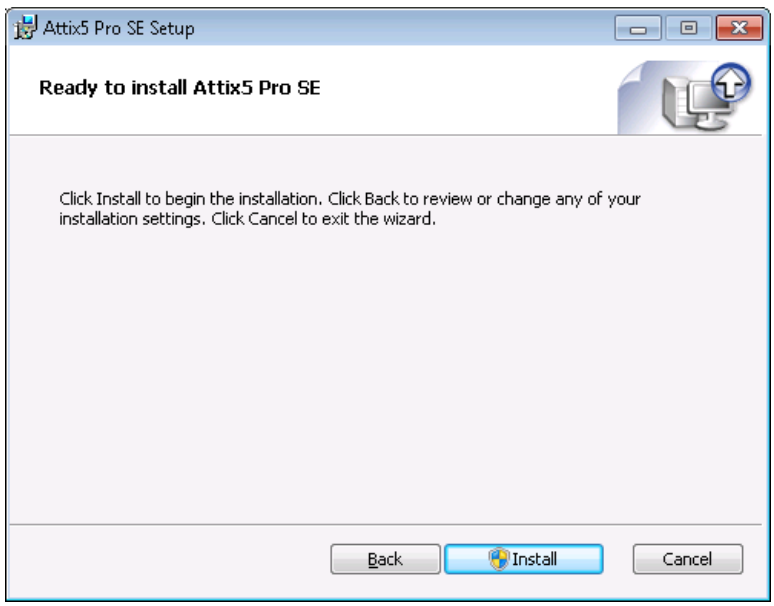


Step 4 of 5: Begin the installation

Once all the settings are configured, the wizard is ready to begin the installation.

To begin the SE installation:

Click **Install**.


Attix5 Pro SE Setup
Ready to install Attix5 Pro SE
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

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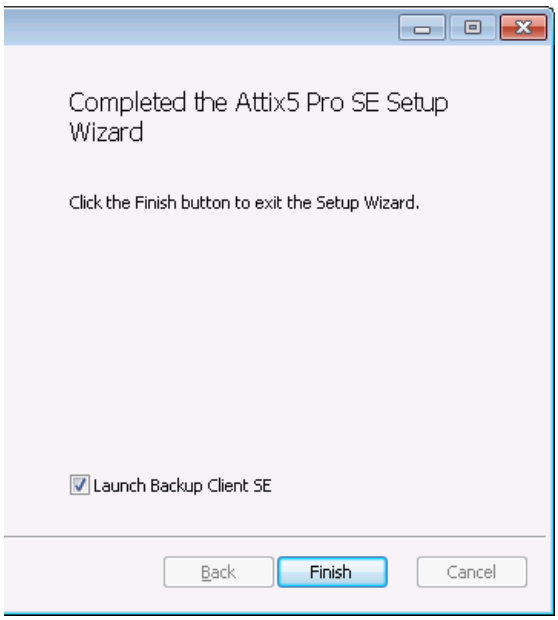
Step 5 of 5: Exit the Attix5 Pro SE Setup Wizard

The last step of the wizard presents the option to launch the Backup Client.

To launch the Backup Client immediately after the Attix5 Pro SE Setup Wizard:

1. Ensure that the **Launch Backup Client SE** check box is selected.
2. Click **Finish**.



Note:

- *If the MSI file is being run from the same location as the plug-in installer file, the Setup Wizard will give you the option to launch the plug-in installer before launching the Client. Select the **Launch Plug-in Installer** check box to run it immediately after the Attix5 Pro SE Setup Wizard. For more information about plug-ins, please refer to the Attix5 Pro Server Edition Plug-ins User Manual.*
- *Before the Plug-in Installer launches, a **User Account Control** dialog box may appear, asking you if you wish to allow the Plug-in Installer to make changes to the computer. Click **Yes** to run the installer.*

If you selected the **Launch Backup Client SE** check box in the last step of the Attix5 Pro SE Setup Wizard, the Backup Client will open automatically upon clicking **Finish** and the **Setup Wizard** (which is the Backup Account Wizard and Backup Wizard combined) will launch, enabling you to create a Backup Account and configure your backup settings. Follow the wizard steps as described in Chapter 3, "Setup Wizard".

If you opted not to launch the Backup Client immediately, you can open the Backup Client interface at a later stage via the **Start** menu or by following any of the instructions listed under *Opening the Backup Client* in Chapter 5, "Graphical User Interface".

Note: The Setup Wizard will launch when you open the Backup Client for the first time.

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3. Setup Wizard

The Setup Wizard consists of the Account Wizard and Backup Wizard combined into one. It is used to set up a Backup Account (which is required for backing up) and configure your backup settings. The Setup Wizard runs automatically the first time the Backup Client is opened. You can run the standalone Account Wizard or Backup Wizard at any other time by clicking:

- Tools > Wizards > Account Wizard
- Tools > Wizards > Backup Wizard

*Note: If you run the Account Wizard, a warning box will appear. Click the **Run Account Wizard** button and follow the instructions.*

If you selected the **Launch Backup Client SE** check box in the last step of the Attix5 Pro SE Setup Wizard (see *The Attix5 Pro SE Setup Wizard* in Chapter 2, "Installation"), the Backup Client will run and display the Setup Wizard automatically.

If the **Launch Backup Client SE** check box was not selected in the last step of the Attix5 Pro SE Setup Wizard, the Setup Wizard will launch when the Backup Client is opened for the first time (for more information, see *Opening the Backup Client* in Chapter 5, "Graphical User Interface").

The Setup Wizard typically consists of seven steps to guide you through the setup task in a simple, step-by-step manner.

Note: Some of the settings encountered in the wizard may have been removed when the MSI was created. Furthermore, the wizard may contain additional steps. Please read each window carefully before continuing.

Step 1 of 7: Specify Storage Platform settings

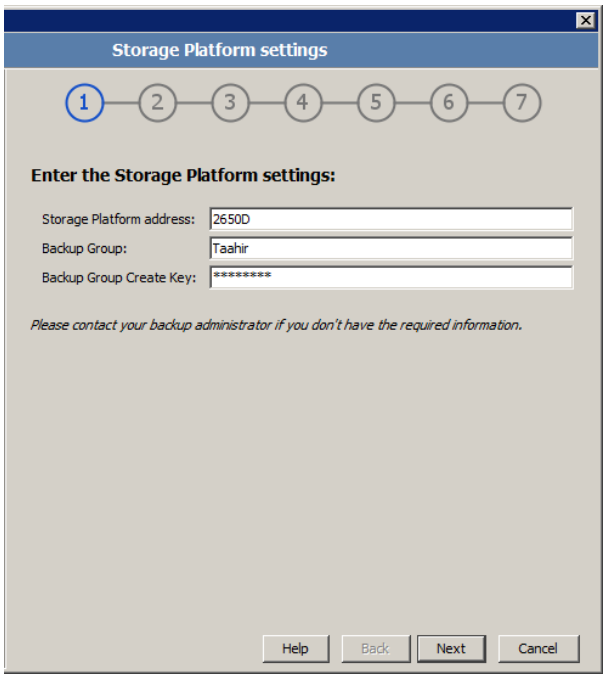
To specify the Storage Platform settings:

1. In the **Storage Platform address** box, type the IP address or DNS name of the Storage Platform where the Backup Account resides.
2. In the **Backup Group** box, specify which Backup Group the Backup Account belongs to.

   Note: Type the Group name in relation to any Collections it may belong to.

   Example: COLLECTIONA|COLLECTIONB|GROUP
3. In the **Account Create Key** field, specify the preconfigured Backup Account create key for the applicable Group. If you do not have access to this key, please contact your Storage Platform administrator.

   Note: This key is case sensitive.



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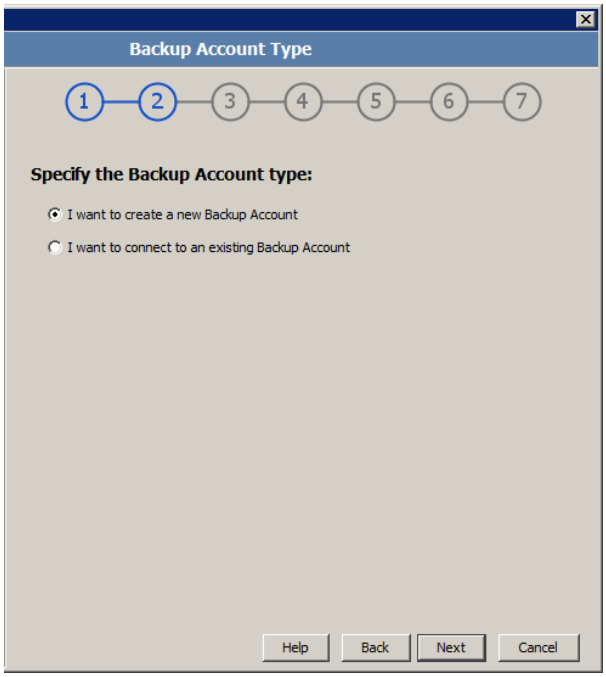
4. Once all the correct settings have been entered, click **Next**.

Step 2 of 7: Create or connect to a Backup Account


Backup Account Type
1 2 3 4 5 6 7
Specify the Backup Account type:
I want to create a new Backup Account
I want to connect to an existing Backup Account
Help
Back
Next
Cancel

You can either create a Backup Account or connect to an existing Backup Account.

To create a new Backup Account:

1. Select I want to create a new Backup Account.
2. Click **Next**.

To connect to an existing Backup Account:

*Note: You can select **I want to connect to an existing Backup Account** to:*

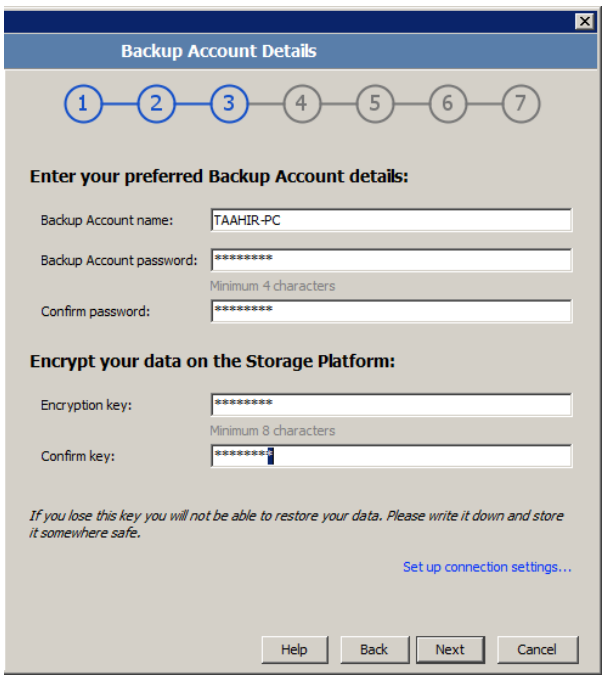
- *Connect to an Account that has been opened for use by this computer.*
- *Reconnect to an Account to recover data from the computer that had previously backed up to this Account.*

1. Select I want to connect to an existing Backup Account.

Warning: Different servers cannot back up to the same Backup Account. A separate Backup Account needs to be created for each server.

2. Click **Next** to continue.

Step 3 of 7: Specify Backup Account details


Backup Account Details
1 2 3 4 5 6 7
Enter your preferred Backup Account details:
Backup Account name:
TAAHIR-PC
Backup Account password:
Minimum 4 characters
Confirm password:
Encrypt your data on the Storage Platform:
Encryption key:
Minimum 8 characters
Confirm key:
If you lose this key you will not be able to restore your data. Please write it down and store it somewhere safe.
Set up connection settings...
Help
Back
Next
Cancel

Depending on the option you selected in the previous step, you will either be prompted to specify new Backup Account details or to supply the already configured details of the existing Backup Account.

To specify new Account details:

1. In the **Backup Account name** box, type a Backup Account name that consists of a minimum of 4 characters.
2. In the **Backup Account password** box, type a password that consists of a minimum of 4 characters. Confirm it in the **Confirm password** box.
3. In the **Encryption key** box, type an encryption key that consists of a minimum of 8 characters. Confirm it in the **Confirm key** box.

Warning: Please write down your encryption key and store it in a safe place as YOU WILL NOT BE ABLE TO RESTORE YOUR DATA WITHOUT IT.

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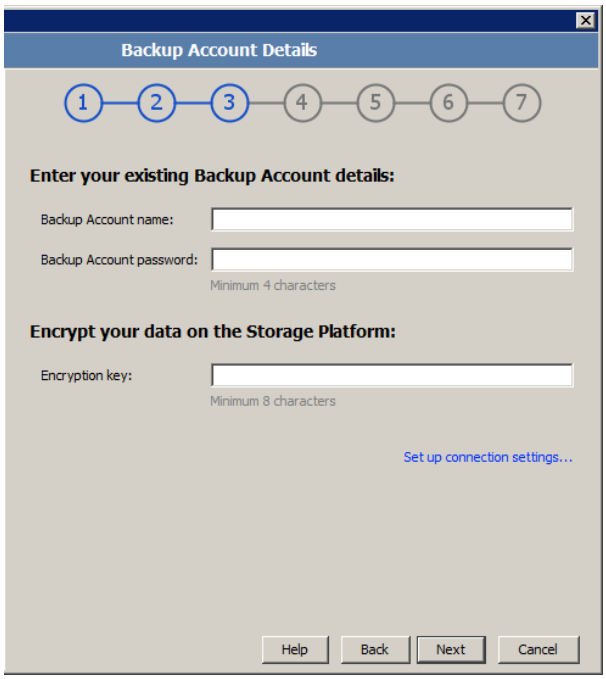
4. Click **Set up connection settings...** if you'd like to configure your connection to the Storage Platform.
5. Click **Next**.

When connecting to an existing Account:

1. In the **Backup Account name** box, type the Backup Account name.
2. In the **Backup Account password** box, type the Account password.
3. In the **Encryption key** box, type the encryption key chosen when the Backup Account was created.
4. Click **Set up connection settings...** if you'd like to configure your connection to the Storage Platform.
5. Click **Next**.

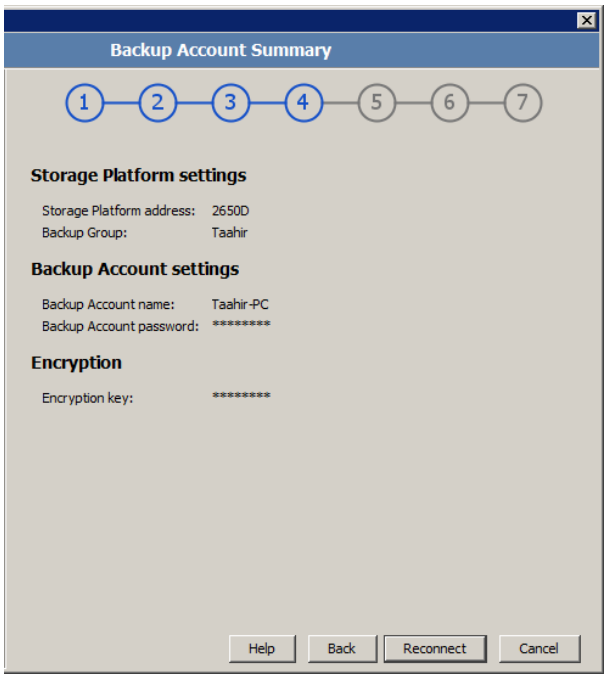


Step 4 of 7: Confirm Backup Account summary

Confirm that the information you have supplied is correct, and then click **Create** or **Reconnect**, depending on whether you are creating a new Backup Account or connecting to an existing Backup Account.

The Backup Client will connect to the Storage Platform and configure your Backup Account. A message will be displayed confirming that your Backup Account has been successfully configured.

This is the last step of the Account Wizard. After your Backup Account is successfully configured, the Setup Wizard will immediately start the Backup Wizard to help you configure your backup settings.



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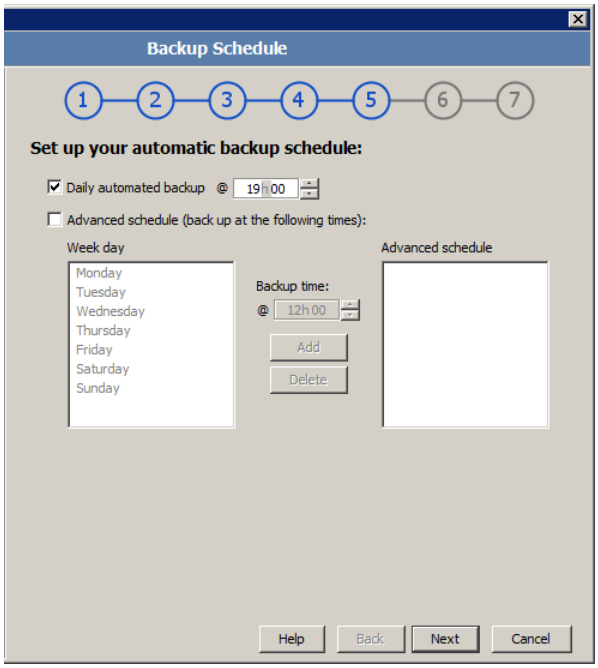
Step 5 of 7: Schedule backup process

Attix5 Pro can run backups on included files and folders either upon request (manually) or automatically. This step enables you to set up a backup schedule.



> *Tip: It is advised to back up at night when the server is running and the Backup Client is not in use. The server must be switched on at the time(s) specified for scheduled backups, but the Windows user does not need to be logged in.*

To configure the Backup Client to run only manual backups:

> *Warning: This option is not recommended. If an automated backup schedule is not created, backups will have to be run manually. Enabling automatic backups is strongly advised.*

1. Clear the **Daily automated backup** and **Advanced schedule...** check boxes.
2. Click **Next** to move to the next step in the wizard.

To schedule a daily automated backup:

1. Select the **Daily automated backup** check box.
2. Specify a time in the associated box.
3. Click **Next** to move to the next step in the wizard or create an advanced backup schedule as described below.

To create an advanced backup schedule:

1. Select the Advanced schedule (back up at the following times) check box.
2. In the **Week day** box, select a day on which a backup should be initiated.
3. Specify the time in the **Backup time** box.
4. Click the **Add** button to add the day and time to the **Advanced schedule** box.
5. Repeat the steps above until you have added all desired schedules.
6. Click **Next** to move to the next step in the wizard.

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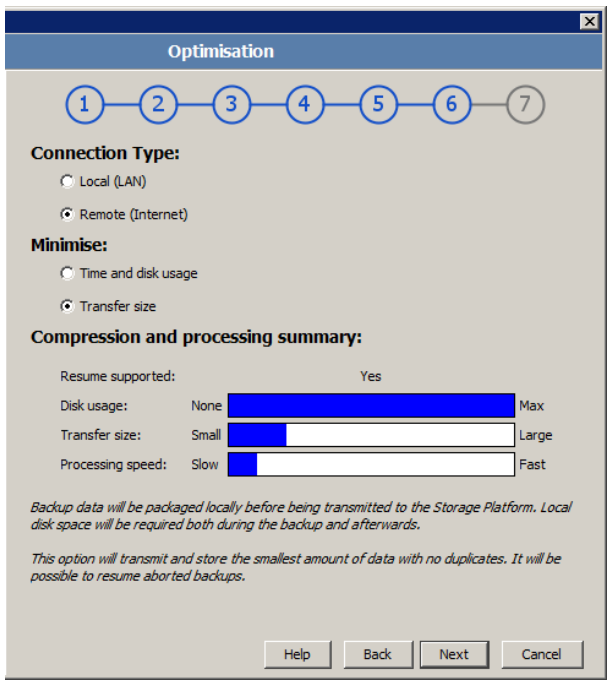
Step 6 of 7: Optimise for backup environment

The Backup Wizard enables you to quickly optimise your settings for backing up in a specific environment.


Optimisation
1 2 3 4 5 6 7
Connection Type:
Local (LAN)
Remote (Internet)
Minimise:
Time and disk usage
Transfer size
Compression and processing summary:
Resume supported: Yes
Disk usage: None Max
Transfer size: Small Large
Processing speed: Slow Fast
Backup data will be packaged locally before being transmitted to the Storage Platform. Local disk space will be required both during the backup and afterwards.
This option will transmit and store the smallest amount of data with no duplicates. It will be possible to resume aborted backups.
Help Back Next Cancel

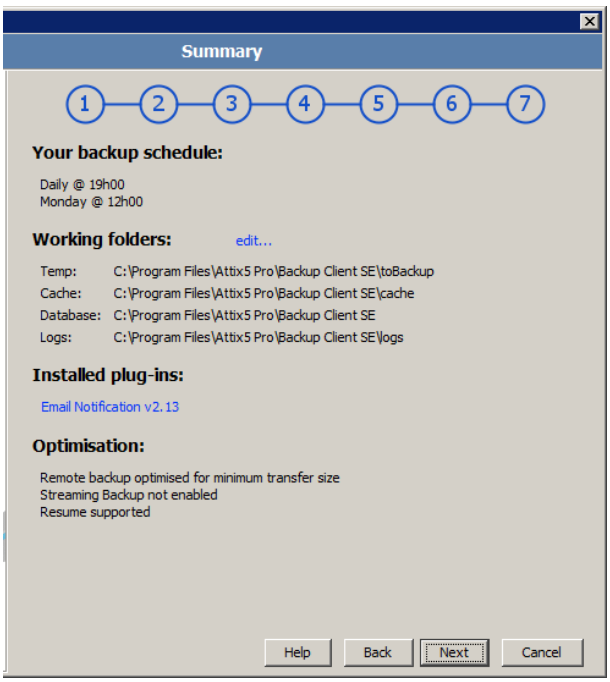
To optimise your settings:

1. Select what type of connection you use to back up.
2. Select whether you want to optimise to minimise time and disk usage or transfer size.

   Using the options you have chosen, the Backup Wizard displays a compression and processing summary that details the effects your choices will have. It also provides a brief summary of these effects.
3. Click **Next** to continue.

Step 7 of 7: Confirm backup configuration

The wizard displays a summary of the choices you have made. It also shows the working folders which you can edit by clicking the **edit...** link.



Note:

- *If the drive on which the Backup Client is installed has limited space available, you can move the folders and selection database to another location.*
- *The **Temp** and **Cache** folders must reside on the same drive/volume.*

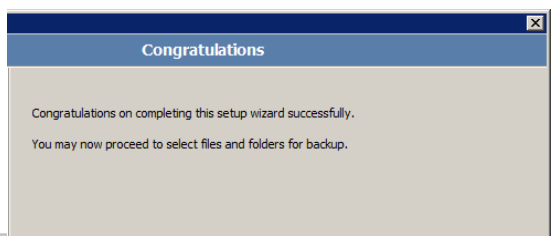
The wizard also displays a list of installed plug-ins. Certain plug-ins, identified by blue text, can be customised from this step clicking on the plug-in. Alternatively, you can access and configure the plug-ins later from the **Tools** menu.

Finally, the wizard also displays the optimisation options that you chose, together with the effects of your choices.

Click **Finish** to complete the wizard.

Congratulations

You have now successfully completed the Setup Wizard. Click **Next** and select data to back up.


Congratulations
Congratulations on completing this setup wizard successfully.
You may now proceed to select files and folders for backup.

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4. Updating Backup Clients and plug-ins

Backup Clients and their plug-ins are usually set up to be updated automatically but the process can be carried out manually. You'll find a description of Auto Updates and a set of instructions on how to perform manual updates in the following sections.

Auto Updates

Attix5 Pro allows you to automate the update process so that the Server Edition Backup Client is updated with the latest software version during the backup process.

Warning: If a plug-in has been deprecated, the Backup Client will only be updated to the latest version in which the plug-in was still supported.

Attix5 creates *update packs* that are distributed to the AccountServer. The AccountServer then distributes these packs to the different Backup Clients as they are requested during the backup process.

Note:

- *Auto Updates must be enabled on the Storage Platform for this feature to work. For more information on enabling Auto Updates, please refer to the Storage Platform Console User Manual.*
- *By default, if there is less than 500 MB free space available, an update pack is not requested. This is logged to the Backup Service log.*
- *Backup Clients are always updated to the latest version and service pack available on the Storage Platform.*

If a Backup Client update is available, the following will occur. After the backup process has completed, if the Backup Client GUI is open, you will be presented with an update dialog box. You have the option to update now or cancel:

- Clicking **Update now** closes the Backup Client GUI and installs the update.
- Clicking **Cancel** closes the dialog box and does **not** install the update. The dialog box will appear again the next time you back up.

If the Backup Client GUI is closed when an automated backup occurs, the update will be installed automatically. After an Auto Update occurs, the Attix5 Pro system tray icon will display a notification indicating that the update was successfully applied.

Plug-ins can also be updated automatically. During the backup process, the Storage Platform will compare the plug-in versions received from the Backup Client with the latest versions available on the Storage Platform. If newer versions are available, the Backup Client will download the files and automatically update the installed plug-ins.

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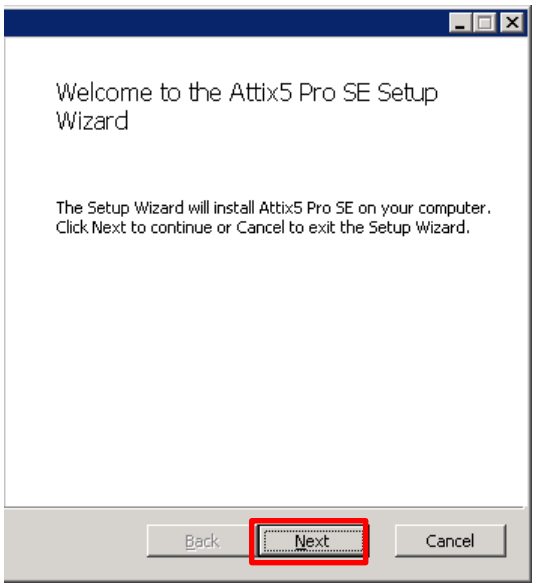
Manual updates

To manually update SE Backup Clients and their plug-ins:

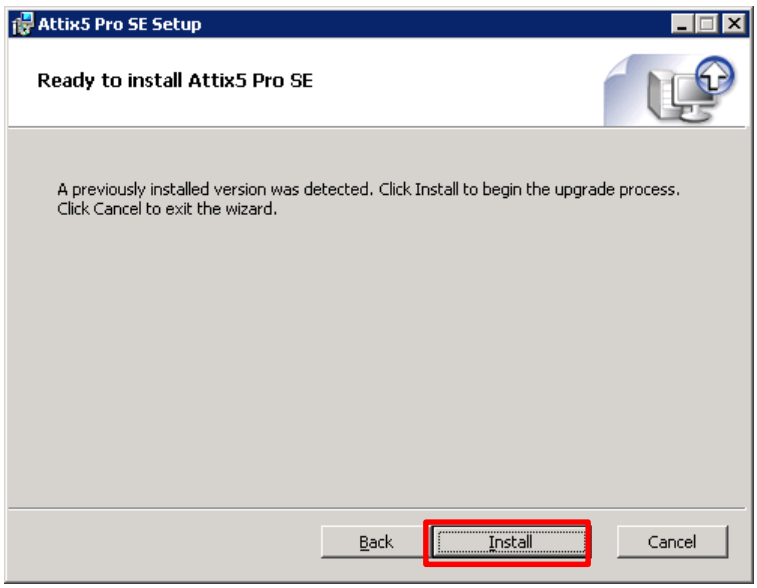
1. Close the Backup Client application interface and the SE system tray icon.
2. Run the SE Installer.

   Note: The SE Installer retrieves the install location from the backup service and cannot be changed as you are upgrading an existing SE Client.

3. On the **Welcome** screen, click **Next**:


Welcome to the Attix5 Pro SE Setup Wizard
The Setup Wizard will install Attix5 Pro SE on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel

4. On the Ready to install Attix5 Pro SE screen that appears, click Install:


Attix5 Pro SE Setup
Ready to install Attix5 Pro SE
A previously installed version was detected. Click Install to begin the upgrade process. Click Cancel to exit the wizard.
Back
Install
Cancel

5. If the Attix5 Pro SE service is running, a **Files in Use** wizard screen will appear. Click **OK** to have the installer stop the service, update the software and then restart the service.

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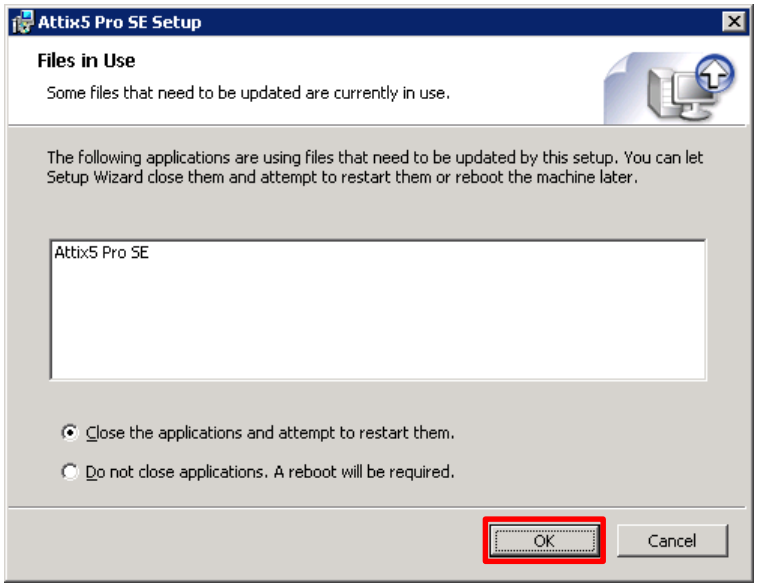
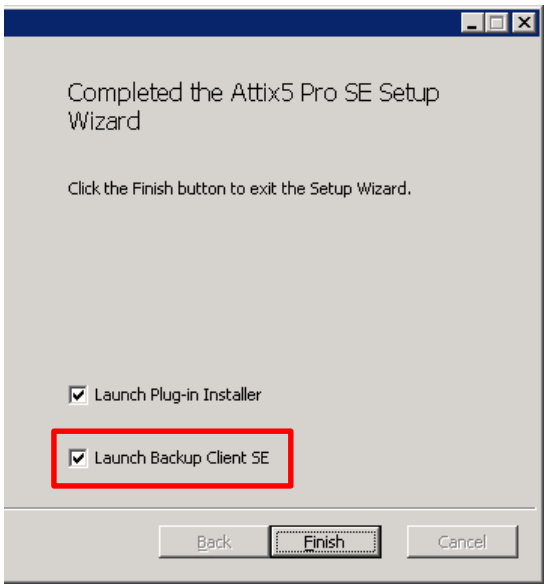

Attix5 Pro SE Setup
Files in Use
Some files that need to be updated are currently in use.
The following applications are using files that need to be updated by this setup. You can let Setup Wizard close them and attempt to restart them or reboot the machine later.
Attix5 Pro SE
Close the applications and attempt to restart them.
Do not close applications. A reboot will be required.
OK
Cancel

If the SE service is not running when the update is being performed, the installer will update the software and start the service thereafter.

6. On the **Completion** screen that displays, **Launch Backup Client SE** is selected by default. Clear the check box if you do not wish to do so.



7. If you have the plug-in installer file in the same directory as the new Backup Client installer file, a **Launch Plug-in Installer** check box will display above the **Launch Backup Client SE** check box on the **Completion** screen. If you wish to add or update any plug-ins at this point, ensure that the check box is selected.

*Note: If the plug-in install file is not in the same location as the Backup Client install file. You can manually update installed plug-ins by running the plug-in installer at a later stage. Existing plug-ins are marked with a blue icon and will automatically be updated when you click **Next**. The plug-ins can also be updated automatically during the next backup process.*

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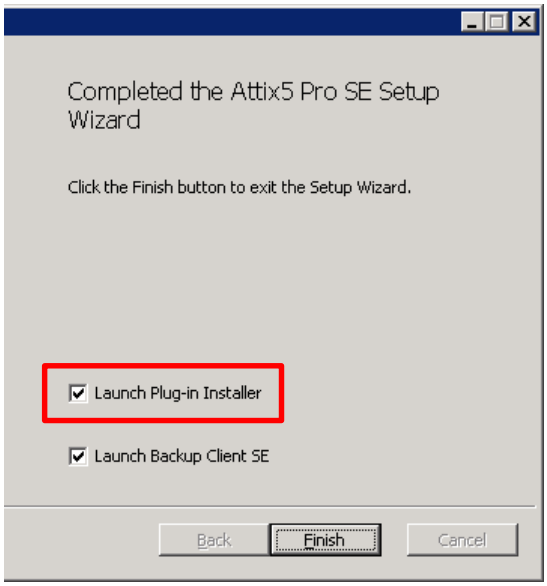
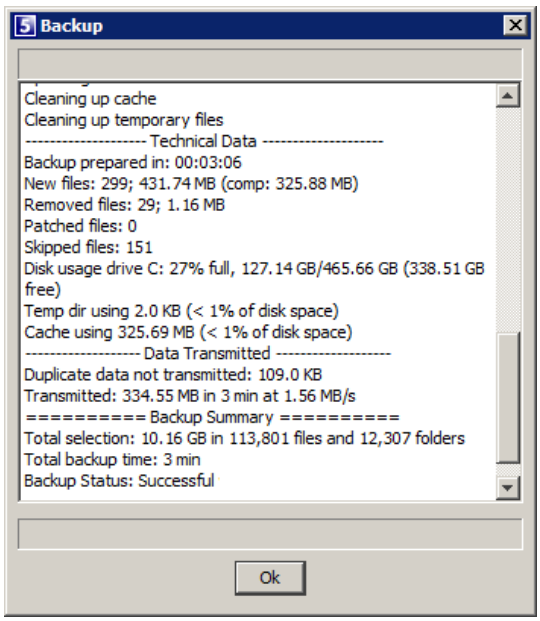


8. After the Backup Client and plug-in updates (if applicable), click **Finish**.
9. Confirm that you can open the SE Backup Client and initiate a backup to the Storage Platform.


Backup
Cleaning up cache
Cleaning up temporary files
---------- Technical Data ----------
Backup prepared in: 00:03:06
New files: 299; 431.74 MB (comp: 325.88 MB)
Removed files: 29; 1.16 MB
Patched files: 0
Skipped files: 151
Disk usage drive C: 27% full, 127.14 GB/465.66 GB (338.51 GB free)
Temp dir using 2.0 KB (< 1% of disk space)
Cache using 325.69 MB (< 1% of disk space)
---------- Data Transmitted ----------
Duplicate data not transmitted: 109.0 KB
Transmitted: 334.55 MB in 3 min at 1.56 MB/s
========== Backup Summary ==========
Total selection: 10.16 GB in 113,801 files and 12,307 folders
Total backup time: 3 min
Backup Status: Successful
Ok

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5. Graphical User Interface (GUI)

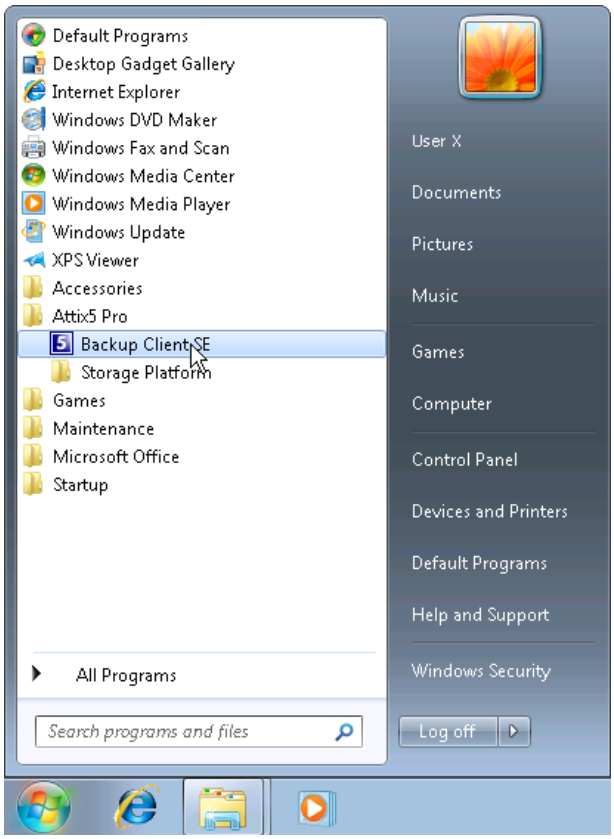
You can use the Graphical User Interface (GUI) to:

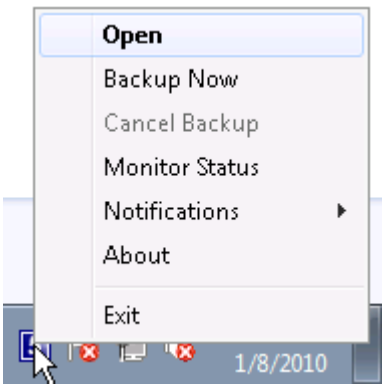
- Select files for backup
- Launch backups
- Schedule automatic backups
- Find files in previous backups
- Restore files and folders from previous backups

Opening the Backup Client

To open the SE Client interface:

On the **Start** menu, point to **All Programs**, point to **Attix5 Pro**, and then click **Backup Client SE**.





Alternatively, if the Client interface is closed but the service is still running (if the Attix5 icon displays in the system tray), double-click the Attix5 Pro icon or right-click it, and then click **Open**:

Note: The first time you open the Backup Client, the Setup Wizard launches automatically. For more information on creating a Backup Account, see Chapter 3, "Setup Wizard".

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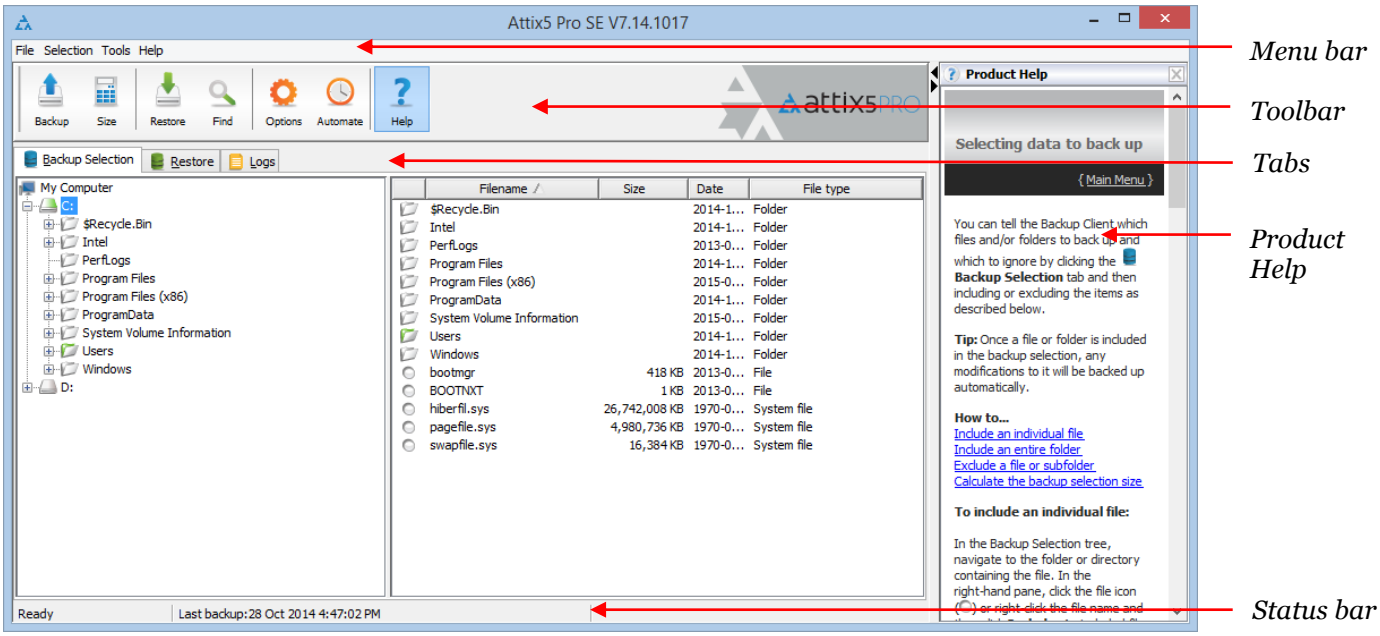
The GUI explained

You can manage and monitor backups using the Backup Client application window, the system tray icon or the notification bubbles that appear when certain processes occur. Below are descriptions of each of these items and the options they provide.

The Backup Client application window contains the following areas:



Menu bar and toolbar buttons

All Backup Client functions can be performed from the menu bar. Shortcuts to the most commonly used menu bar functions are also available on the toolbar and right-click menus.

Menu bar

Each menu on the menu bar contains one or more options. The tables below describe the options available.

File menu

Option	Click the option to...	Button
Backup	Initiate a backup immediately.	
Restore	Switch to the Restore view in the Backup Client. *Tip: For faster access to the Restore view, click the Restore tab instead of using the File menu.*	

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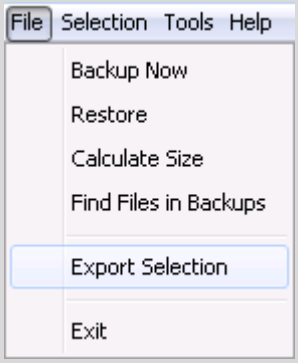
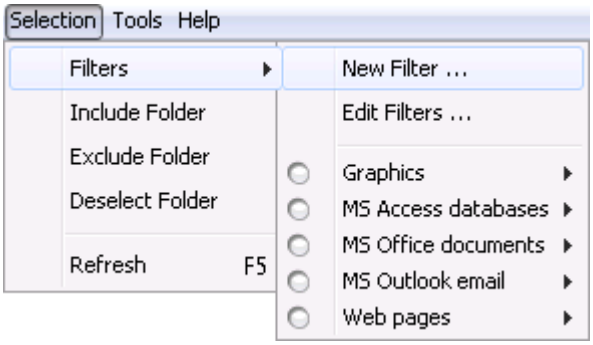
Option	Click the option to...	Button
Calculate Size	Determine the total size of the data included in the backup selection. For more information, see *Determining the backup selection size* in Chapter 6, "Backups".	
Find Files in Backups	Access the Find Files in Backups dialog box. This box enables you to search for particular files in your backups. For more information, see *Finding files in backups in Chapter 7, "Restores".*	
Export Selection	Export a list of all backup inclusions and exclusions to an html file for future reference. For more information, see Exporting a selection report in Chapter 6, "Backups".	
Exit	Close the Backup Client application window. *Tip: You can re-open the Backup Client window at any time via the Windows **Start menu** or by double-clicking the icon in the system tray.*	

Selection menu



Option	Click the option to...
Filters > New Filter	Create a new filter to automate inclusions or exclusions based on file type. For more information, see *Using filters* in Chapter 6, "Backups".
Filters > Edit Filters	Edit existing filters. For more information, see *Using filters* in Chapter 6, "Backups".

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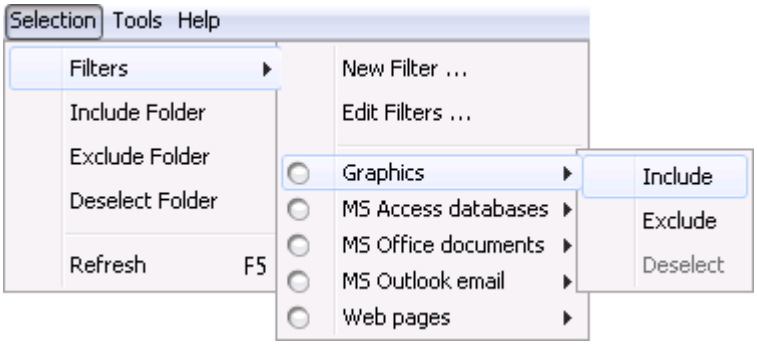
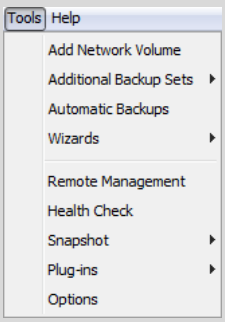


Option	Click the option to...
Filters > [filter] > Include	Include all files in the selected folder that match the filter's criteria. For more information, see *Using filters* in Chapter 6, "Backups".
Filters > [filter] > Exclude	Exclude all files in the selected folder that match the filter's criteria. For more information, see *Using filters* in Chapter 6, "Backups".
Filters > [filter] > Deselect	Clear the selected folder of any filters currently applied to it. For more information, see *Using filters* in Chapter 6, "Backups".
Include Folder	Include the selected folder for backup.
Exclude Folder	Exclude the selected folder from the backup selection.
Deselect Folder	Clear the selected folder of any inclusions or exclusions.
Refresh	Refresh the selection being displayed.

Tools menu

Option	Click the option to...	
Add Network Volume	Add a network volume. For more information, see *Add network volume* in Chapter 9, "Options and settings".	

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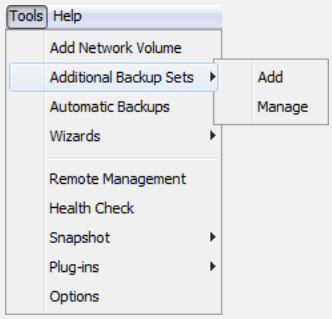
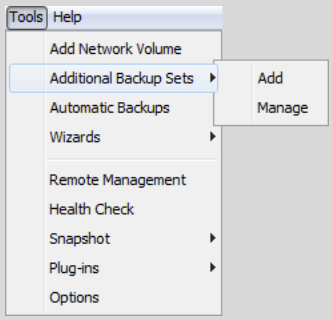
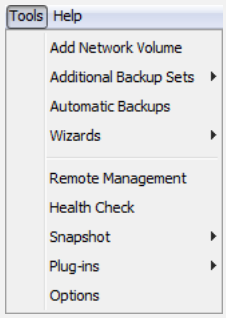
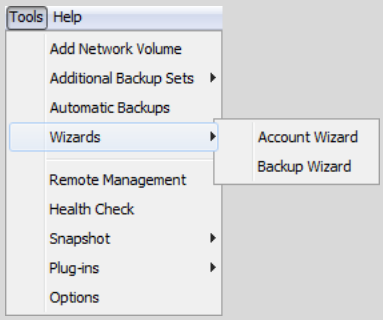
Option	Click the option to...	
Additional Backup Sets > Add	Create additional backup sets. This enables you to have separate backup selections that you can recover as separate sets of files. For more information, see *Multiple backup sets* in Chapter 9, "Options and settings".	
Additional Backup Sets > Manage	Access the Backup Schedule page in the Options and Settings dialog box. Using the settings in this dialog box, you can manage the schedule(s) of your backup sets. For more information, see *Multiple backup sets* in Chapter 9, "Options and settings".	
Automatic Backups	Access the Backup Schedule settings in the Options and Settings dialog box. Configure the settings in the Automatic Backups area to set up one or more automatic backups. For more information, see *Scheduling automatic backups* in Chapter 6, "Backups".	
Wizards > Account Wizard	Launch the Account Wizard, which is a standalone wizard that enables you to change your Backup Account settings. For more information, see Chapter 3, "Setup Wizard".	
Wizards > Backup Wizard	Launch the Backup Wizard, which is a standalone wizard that enables you to configure your backup settings. For more information, see Chapter 3, "Setup Wizard".	

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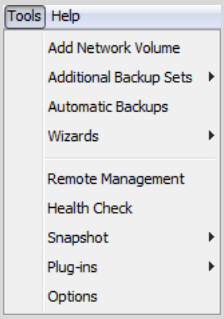
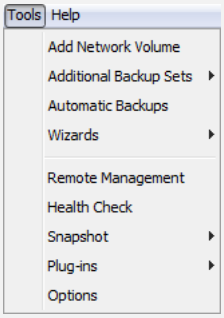
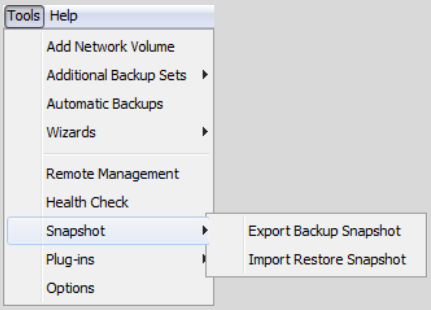
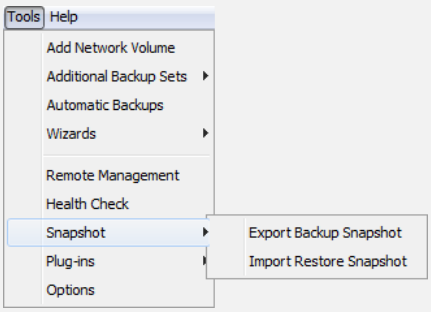
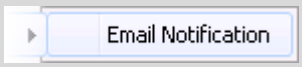
Option	Click the option to...	
Remote Management	Access the Remote Management Settings dialog box. Using the settings available, you can enable Remote Management of the Client via the SP Console. For more information, see *Remote Management* in Chapter 9, "Options and settings".	
Health Check	Access the Health Check dialog box. Performing a Health Check enables you to highlight possible issues. For more information, see *Health Check* in Chapter 9, "Options and settings".	
Snapshot > Export Backup Snapshot	Access the Export Backup Snapshot dialog box, which enables you to configure the next backup to be a Snapshot backup to a specific location. For more information, see *Backup Snapshots* in Chapter 9, "Options and settings".	
Snapshot > Import Restore Snapshot	Access the Import Backup Snapshot dialog box, which enables you to configure Restore Snapshot settings. For more information, see *Restore Snapshots* in Chapter 9, "Options and settings".	
Plug-ins > Email Notification	Access the Email Notification settings dialog box, which you can use to enable/disable Email notification and configure its settings. For more information, see *Email Notification plug-in* in Chapter 10, "Plug-ins".	
Options	Opens the Options and Settings dialog box that enables you to modify a range of Client settings. For more information, see Chapter 9, "Options and settings".	

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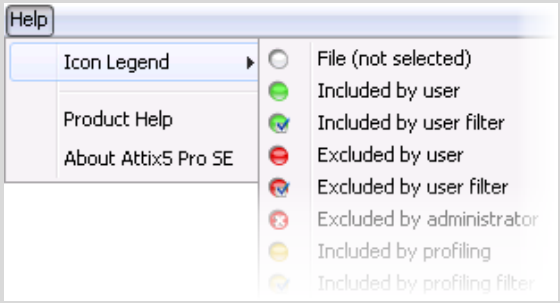
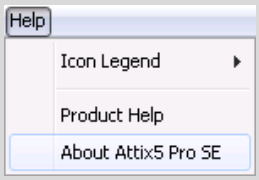
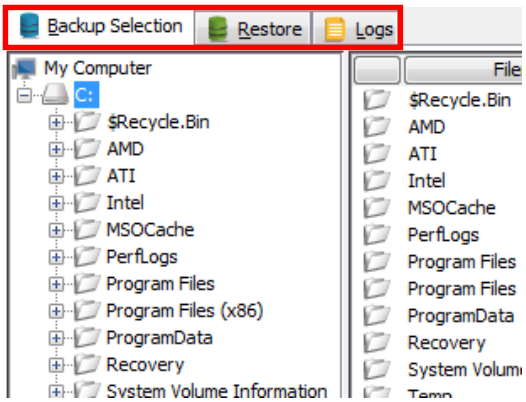
Help menu

Option	Click the option to...	Menu/Button
Icon Legend	Access a list of the icons used in the Attix5 Pro Client and their meanings.	
Product Help	Access the Product Help.	
About Attix5 Pro	Access the product information and support contact details. Also displays any plug-in version inconsistencies.	

Tabs

There are three tabs available in the Backup Client:

- **Backup Selection:** This tab displays the files and folders on the computer, enabling you to select the items to be backed up. For more information, see *How to select data to data back up* in Chapter 6, "Backups".
- **Restore:** Use this tab to browse previous backups and restore files and folders.
- **Logs:** Use this tab to view detailed information on each backup and restore.



*Tip: In the right-hand pane on the **Backup Selection** and **Restore** tabs, you can click any of the column headings to sort the list according to their values.*

Product Help

You can access the Backup Client Help by clicking **Product Help** on the **Help** menu. Alternatively, click the **Help** button on the toolbar.

As you navigate the Client, the Help pane will display information relevant to the selected tab.

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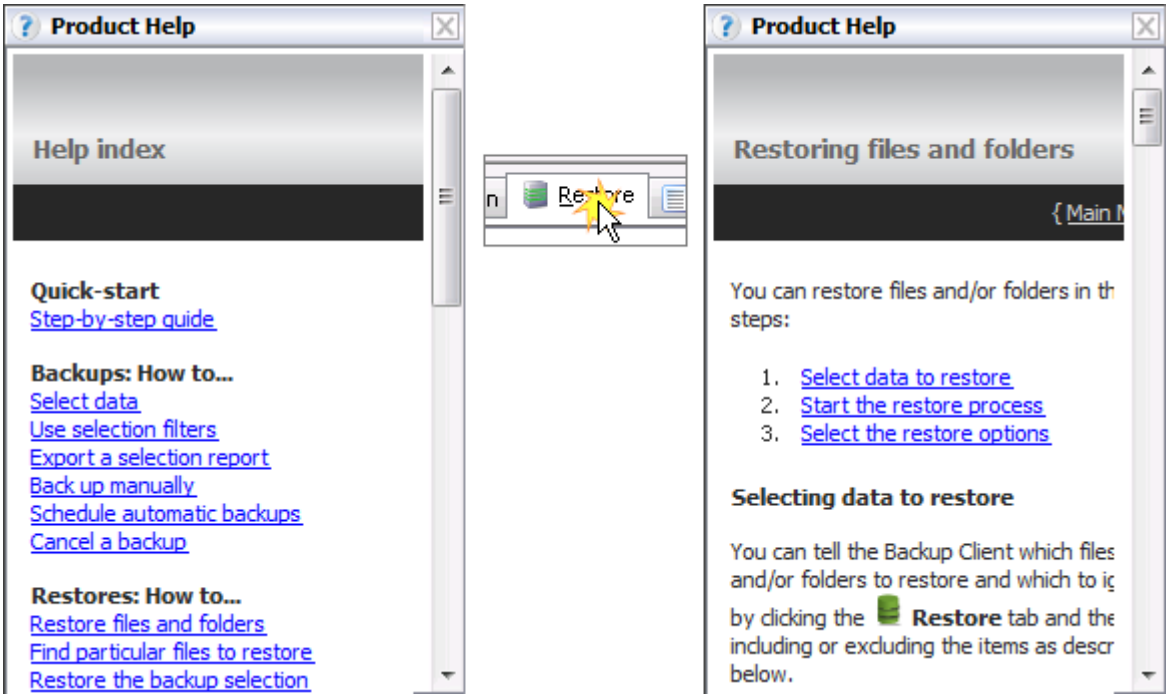
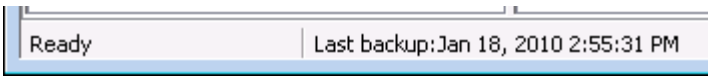


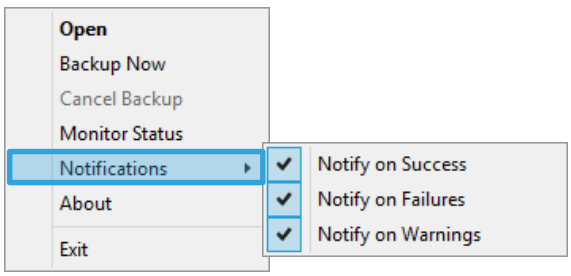
Status bar

This area displays the date and time of the last backup performed by the system.



System tray icon

- The System tray icon indicates the backup activity status and can be used to perform various tasks.
- An animated icon indicates that the service is busy with a backup process.
- Click or right-click the system tray icon to view the menu options available.



*Note: On the Windows 7 operating system, the system tray icon is hidden by default. To display the icon, click the **Show hidden icons** arrow, click **Customize**. In the dialog box that appears, expand the **Behaviours** drop-down next to **SERunner.exe**, and then select **Show icon and notifications.***

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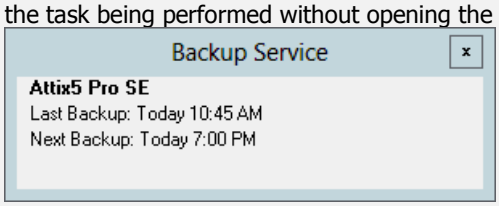
System Tray menu

Options	Click the option to...
Open	Opens the Attix5 Pro Backup Client application window. *Tip: Users can also double-click the system tray icon to open the application window. For more information, see "The GUI explained" earlier in this chapter.*
Backup Now	Manually initiates the backup process without opening the Backup Client application window.
Cancel Backup	If the service is busy with a backup (when the icon is animated), **Cancel** will stop the process.
Monitor Status	Opens a small window above the system tray that enables you to monitor the status and progress of the task being performed without opening the application window. 
Notifications	Provides you with options to enable/disable backup notifications. For more information, see "Notifications" later in this chapter.
About	Displays the splash screen. Click anywhere in the window to close it.
Exit	Removes the icon from the System Tray. *Note: This will not stop the Attix5 Pro service from running scheduled backups.* To see the icon in the system tray again, simply open the Attix5 Pro Backup Client using the Windows Start button. For more information, see "Opening the Backup Client" earlier in this chapter.

Warning: The Backup Service must be running at all times for backups (manual or scheduled) to take place.

*Note: To stop or start the Backup Service, open **Administrative Tools** in the **Control Panel**, and then double-click **Services**. In the list of services that appear, select **Attix5 Pro SE** and select **Stop** or **Start** on the toolbar. The System Tray icon will appear red when the service is not running:*

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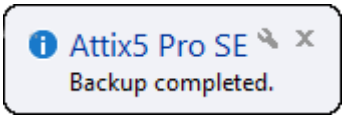
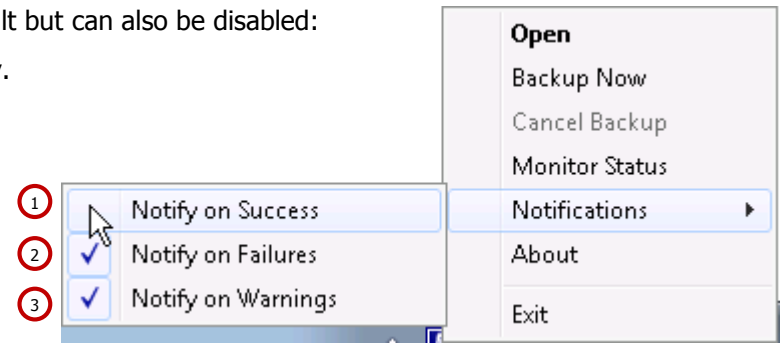
Notifications

Notifications of Backup Client activity will appear as pop-ups in the System Tray. For example:



The following notifications will appear by default but can also be disabled:

1. When a backup completed successfully.
2. When a backup failed to complete.
3. When a backup was completed but there were warning or errors.



Tip: To view related log file information, click anywhere within the pop-up.

Note: You will always be notified if the Backup Client has been upgraded.

To enable or disable notifications:

Right-click the System Tray icon and then enable or disable the check mark next to the relevant **Notifications** option.

Tip: Since notifications only appear briefly, hover over the System Tray icon to see when the last backup occurred.

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6. Backups

After installing Attix5 Pro Server Edition (SE) and creating a Backup Account, you can tell the Backup Client which files and/or folders to back up and which to ignore by creating a backup selection (see "Selecting data to back up" below). You can then start a backup manually or schedule automatic backups (see "Performing a manual backup" and "Scheduling automatic backups" below).

Note: Any changes, additions or deletions to included files and folders will be backed up intelligently with every manual or scheduled backup.

How to back up

The following sections describe how to:

- Select data to back up
- Use filters to specify files and/or folders to be excluded from the backup selection
- Determine the backup selection size
- Export a selection report
- Start backups (automatically and manually)
- Cancel a backup
- Resume a failed or cancelled backup

Selecting data to back up

You can make your first backup selection or modify a backup selection at any time using the **Backup Selection** tab as described below.

Tip: You should exclude the Backup Client installation folder, as including it increases the size of your backup unnecessarily.

To select files and folders for backup:

1. Click the **Backup Selection** tab.
2. In the Backup Selection tree, navigate to the folder or directory containing the file or folder.
3. Include or exclude files and/or folders, as described below.

Tip: Once a file or folder is included in the backup selection, any modifications to it will be backed up automatically. For more information, see Patching in Chapter 9, "Options and settings".

Warning: If you have limited space on the drive running the Backup Client, it is recommended that you move the Cache, Logs and Temporary folders as well as the selection database to another location. For more information, see Disk Usage in Chapter 9, "Options and settings".

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To include an individual file:

In the right-hand pane, click the file icon or right-click the file name, and then click **Include**. An included file is displayed with a green icon: .

To deselect a file, you can either click the icon again or right-click the file name, and then click **Deselect**. A folder containing some included files is displayed with a green tinted icon: .

To include an entire folder:

Right-click the folder icon , and then click **Include Folder**. Alternatively, you can select the folder in the Backup Selection tree, and then click **Include Folder** on the **Selection** menu. Included folders are displayed with a green icon: .

Note: All files in the included folder and its subfolders will be included in the next backup. Any changes made within this folder or its subfolders will automatically be included as well.

To deselect a folder, right-click the folder icon, and then click **Deselect Folder**.

To exclude a file or subfolder:

If an entire folder is included but you wish to exclude a particular file or subfolder, right-click the file or folder icon, and then click **Exclude** or **Exclude Folder**. Excluded items are displayed with red icons: or . Included folders that have some files or subfolders excluded are green with a red tint: .

Tip:

- *You can create different backup selections for different backup sets. For more information, see Multiple backup sets in Chapter 9, "Options and settings".*
- *You can use filters to automate file selection based on file types.*
- *Once you have selected all files to be included and excluded, it may be useful to check the size of your backup selection before initiating your first backup. For more information, see Using filters later in this chapter.*

*Note: Some files and directories are forcefully excluded from the backup selection. On Windows machines, these are the **pagefile.sys** and **hiberfil.sys** files; and the Backup Client **cache** and **toBackup** folders.*

Using filters

You can use filters to automate file inclusions or exclusions within a folder, based on file types.

*Example: A ***.doc** filter will include or exclude all Word documents within a folder, as well as any new Word documents that are added to that folder later.*

To apply a predefined filter to a specific folder:

1. In the Backup Selection tree, right-click the folder icon.
2. Point to **Filters**.
3. Point to one of the available filters in the list (e.g. **MS Office documents**).
4. Click Include or Exclude.

To modify an existing filter:

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1. In the Backup Selection tree, right-click the folder icon, point to **Filters**, and then click **Edit filters**.
2. Select one of the filters and then modify its properties in the **Edit filter** box.
3. Click **OK**.

*Tip: To add a new filter from within the **Edit filters** dialog box, click the **New** button, supply a name that describes the filter, enter the file type(s), and then click **OK**.*

To add a new filter via the Backup Selection tree:

1. Right-click the folder icon, and then click **New filter**.
2. In the **Filter name** box, type a name to be used in the Filters menu.
3. In the **Filter** box, specify the file extensions to which the filter will apply.
4. Click **OK**.

The filter will be added to the Filters menu and you will be able to use it to include or exclude all files matching its criteria.

To remove filters from a folder:

1. Right-click the folder icon.
2. Point to **Filters**.
3. Point to the name of the filter you wish to remove.
4. Clear the check mark next to the selection (**Include** or **Exclude**).

To identify files and folders selected by filters:

Look at the icon state. Files and folders included in the backup selection by filters display with icons containing blue check marks: and .

Inclusions and exclusions by "profiling"

Some inclusions and exclusions are enforced at administration level on the Storage Platform. This is called "profiling". For more information, see *Profiling* in Chapter 9, "Options and settings".

Files and folders affected by profiling display with the following icons:

Icon	Status
	File inclusion
	Filtered file inclusion
	File exclusion
	Folder inclusion
	Filtered folder inclusion
	Folder exclusion

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Note: Profiled selections cannot be modified from within the Backup Client and can only be changed on the Storage Platform. For more information, please refer to the ***Attix5 Pro Storage Platform Console User Manual.***

Global exclusions

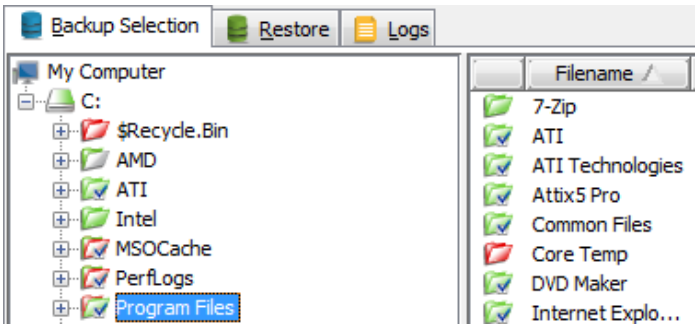
Global exclusions enable you to specify files and/or folders to be excluded from the backup selection.

To add Global Exclusions:

1. Click the **Options** button on the toolbar, and then click **Global Exclusions**.
2. Select the type(s) of filters to apply and then specify their values. (For more information, see *Global Exclusions* in Chapter 9, "Options and settings".)
3. Click **OK**.

Icon legend

On the **Backup Selection** tab, each file and folder is displayed with an associated icon. The colour of the icon indicates the file or folder's backup selection status.



The following icon legend lists the Attix5 Pro icons and the statuses they indicate. You can access this legend by clicking **Icon Legend** on the **Help** menu.

Note: For more information on backup selections (inclusions and exclusions), see "Selecting data to back up" earlier in this chapter.

Icon legend

Icon	Status	Description
	File (not selected)	The file exists in the folder or directory but is not *included* in the backup selection (neither included nor excluded).
	Selected by user	The Backup Client user has *included* the file in the backup selection.
	Selected by user filter	The Backup Client user has applied a filter to the parent folder or directory. That filter has *included* the file in the backup selection.
	Excluded by user	The Backup Client user has *excluded* the file from being backed up to the Storage Platform.

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Icon	Status	Description
	Excluded by administrator	The Backup or Storage Platform Administrator has *excluded* this file or its file type. Files displaying this icon will not be backed up to the Storage Platform.
	Included by profiling	The Backup or Storage Platform Administrator has *included* this file or file type. Files displaying this icon will be backed up to the Storage Platform and cannot be deselected from within the Backup Client.
	Included by profiling filter	The Backup or Storage Platform Administrator has applied a filter to the parent folder or directory. That filter has *included* the file in the backup selection. Files displaying this icon cannot be *deselected* or *excluded* from within the Backup Client.
	Excluded by profiling	The Backup or Storage Platform Administrator has *excluded* this file or its file type. Files displaying this icon will not be backed up to the Storage Platform and cannot be *included* in the backup selection from within the Backup Client.
	Folder (not selected)	The folder exists in the directory but it is not *included* in the backup selection.
	Some files included by user	The Backup Client user has *included* some files or folders in the backup selection.
	All files selected by user	The Backup Client user has *included* all files in the backup selection.
	All files selected by user, some excluded	The folder contains no unselected files. Each file is either *included* or *excluded*.
	All files excluded by the user	The Backup Client user has *excluded* all files in the folder from being backed up to the Storage Platform.
	Filter applied by user	The Backup Client user has applied a filter to the folder. The filter has *included* one or more files within the folder or sub-folders.
	Filter applied by user, some excluded	The Backup Client user has applied a filter to the folder that has *included* and *excluded* files within it.
	All items included by profiling	The Backup Administrator has *included* all the files contained in the folder. All files will be backed up to the Storage Platform. These inclusions cannot be changed by the Backup Client user.
	Filter applied by profiling	The Backup Administrator has applied a filter to the folder. This filter cannot be removed by a Backup Client user.
	Filter applied by user, all items excluded	The Backup Client user has applied a filter to the folder, resulting in the folder being *excluded* from the backup selection.
	Filter applied by profiling, some items included by user	The Backup Administrator has applied a filter to this folder using profiling and some items have been manually *included* by the Backup Client user (see "Selecting data to back up" earlier in this chapter).

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Icon	Status	Description
	Filter applied by profiling, some items included and some items excluded by user.	The Backup Administrator has applied a filter to this folder using profiling. Some items have been *excluded* and others *included* by the Backup Client user (see "Selecting data to back up" earlier in this chapter).
	Filter applied by profiling but items excluded by user.	Items in the folder have been *included* using filters (see 'Using filters" earlier in this chapter.)
	Folder excluded by Global Filter.	The folder has been *excluded* using Global Exclusions.
	All items (files, folders, etc.) excluded by profiling	The Backup Administrator has *excluded* all files in the folder and sub-folders. These *excluded* files cannot be *included* by a Backup Client user.
	Plug-in node (not selected)	The plug-in exists but is not selected for backup to the Storage Platform.
	Some items selected by user	The Backup Client user has selected some of the items in the plug-in for backup to the Storage Platform.
	All items selected by user	The Backup Client user has selected all items in the plug-in for backup to the Storage Platform.
	All items selected by user, some excluded	The Backup Client user has *included* and *excluded* items in the plug-in.
	All items excluded by user	The Backup Client user has *excluded* all items in the plug-in from being backed up to the Storage Platform.
	Filter applied by user	The Backup Client user has applied a filter to the plug-in; specifying that certain file types must be *included* for backup to the Storage Platform.
	Filter applied by user, some excluded	The Backup Client user has applied a filter to the plug-in; specifying that certain file types be *included* for backup to the Storage Platform but some items have been *excluded* either through the use of an exclusion filter or by manual exclusion.

Note: For more information, see "Inclusions and exclusions by 'profiling'" in Chapter 5, "Graphical User Interface (GUI)" and plug-ins in Chapter 10, "Plug-ins".

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Determining the backup selection size

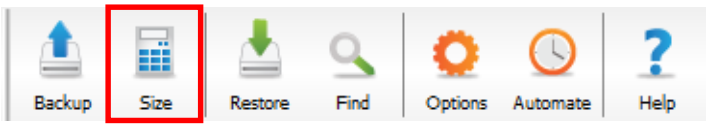
It is useful to determine the backup selection size before starting the backup process to avoid Over Limit errors.

Note: The Backup Client compares your backup selection size with the Backup Account limit (specified by your Backup Administrator) at the beginning of the backup process. If the selection size exceeds the Account limit, the backup process will stop and an Over Limit error message will be displayed.

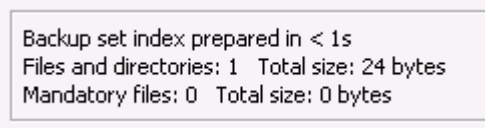
To calculate the backup selection size:

A. On the **File** menu, click **Calculate Size**.

B. Alternatively, click the **Size** button on the toolbar:



The **Backup Selection Size** dialog box that appears displays total size of your backup selection (i.e. all files included for backup).



Warning:

- *If your backup selection size exceeds your Backup Account limit, you need to remove some items from the selection or ask your Backup Administrator to upgrade your Backup Account limit.*
- *If a backup fails and an Out of Memory error message is recorded in the backup log, you need to increase the default amount of server memory you wish to allocate to the backup service.*

To remove a file from the backup selection:

A. In the **Size** dialog box, right-click the file's icon: . The icon will turn red to indicate that it is excluded: .

*Note: To exclude multiple files at once, click a file name in the list, hold down the **Shift** key and drag the mouse pointer to highlight the files. Right-click the selection, and then click **Exclude**.*

B. Alternatively, on the **Backup Selection** tab, deselect or exclude files or folders that are currently selected for backup. For more information, see *Selecting data to back up* in Chapter 6, "Backups".

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Exporting a selection report

After creating a backup selection, you can export a list of all backup inclusions and exclusions to an html file for future reference.

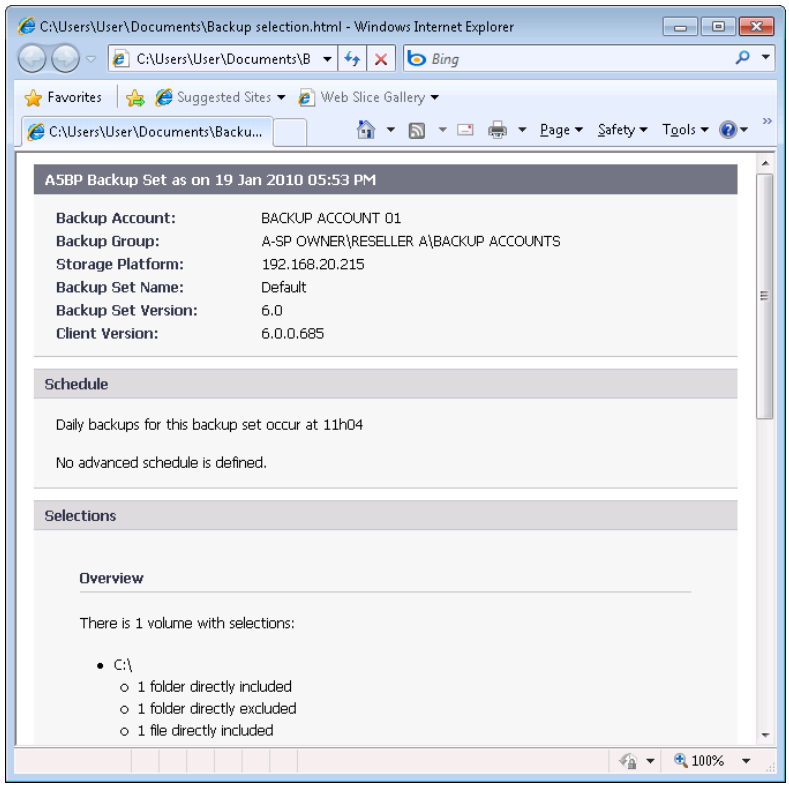
The selection report will specify:

- Files and folders included in the backup
- Files and folders excluded from the backup
- How each item was selected (user-selected, filters, profiling, global exclusions or mandatory patching)
- Where each item is located on the machine
- The total number of items in the backup selection

To export a selection report:

1. On the **File** menu, click **Export Selection**.
2. In the **Save As** dialog box, select the location in which to save the file, type a file name in the **File name** box, and then click **Export**.

The file will be saved to the specified location and can be viewed in any Internet browser.


C:\Users\User\Documents\Backup selection.html - Windows Internet Explorer
A5BP Backup Set as on 19 Jan 2010 05:53 PM
Backup Account: BACKUP ACCOUNT 01
Backup Group: A-SP OWNER\RESELLER A\BACKUP ACCOUNTS
Storage Platform: 192.168.20.215
Backup Set Name: Default
Backup Set Version: 6.0
Client Version: 6.0.0.685
Schedule
Daily backups for this backup set occur at 11h04
No advanced schedule is defined.
Selections
Overview
There is 1 volume with selections:
C:\
1 folder directly included
1 folder directly excluded
1 file directly included

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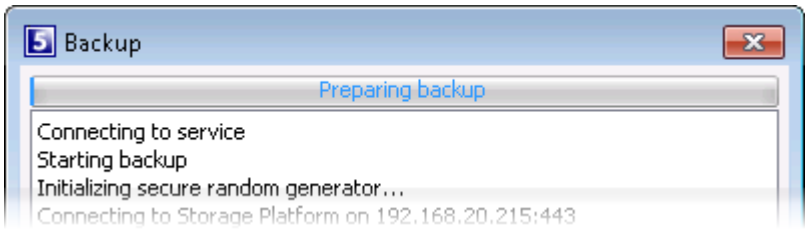
Starting a backup manually

Tip: Run a backup manually after creating your backup selection to ensure immediate data transmission to the Storage Platform. Thereafter, automatic backups will ensure hassle-free continuous backups. For more information, see "Scheduling automatic backups" later in this chapter.

To start a backup manually:

1. On the **File** menu, click **Backup Now**. Alternatively, click the **Backup** button on the toolbar.

   The **Backup** dialog box appears and displays the progress of the backup:

   If multiple backup sets are enabled and their backup windows overlap, a backup queue will display in the **Backup** dialog box, enabling you to cancel the current backup in favour of the next, should you wish to do so. For more information, see *Multiple backup sets* in Chapter 9, "Options and settings".

2. To close the Backup Client after the backup process has started, click the **Hide** button. This will **not** cancel the backup process and the Backup Client can be re-opened at any time to view the progress of the backup.

Tip:

- *You can monitor the backup progress at any time by right-clicking the system tray icon and then clicking **Monitor Progress**.*
- *To view backup logs, click the **Logs** tab. Backup log dates are displayed in blue.*

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Scheduling automatic backups

Automatic backups are usually enabled and configured either during the Setup Wizard or during the Backup Wizard but you can enable and schedule them at any point in time using the **Options and Settings** dialog box.

To schedule a daily automated backup:

1. On the **Tools** menu, click **Options**. Alternatively, click the **Options** button on the toolbar.
2. In the **Options and Settings** dialog box, click **Backup Schedule**.
3. If multiple backup sets are enabled, ensure that the correct set is selected in the **Backup set** drop-down box. (For more information on backup sets, see *Multiple backup sets* in Chapter 9, "Options and settings".)
4. Select the **Daily automated backup** check box, and then specify a backup time in the associated box.
5. Click **OK**.

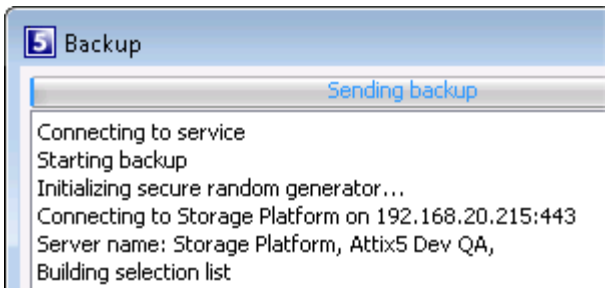
To create an advanced backup schedule:

1. Select the **Advanced schedule (back up at the following times)** check box.
2. In the **Week day** box, select the day on which a backup should be initiated.
3. Specify the time in the **Backup time** box.
4. Click the **Add** button to add the day and time to the **Advanced schedule** box.
5. Repeat steps 2 to 4 above until you have added all desired schedules to the **Advanced schedule** box.

Tip:

- *You are advised to back up at night when the server running the Backup Client is not in use. It must be switched on at the scheduled backup time(s), but the Windows user does not need to be logged in.*
- *Configuring automatic backups ensures that all selected data is backed up automatically, without the need for any user interaction. This is a safer alternative to relying on manual backups.*

Backups will initiate at the scheduled times and the **Backup** dialog box will appear displaying the progress of the backup:



If multiple backup sets are enabled and their backup windows overlap, a backup queue will display in the **Backup** dialog box, enabling you to cancel the current backup in favour of the next, should you wish to do so. For more information, see *Multiple backup sets* in Chapter 9, "Options and settings".

Tip:

- *To close the Backup Client after the backup process has started, click the **Hide** button. This will **not** cancel the backup process and you can re-open the Backup Client at any time to view the progress of the backup.*
- *You can monitor the backup progress at any time by right-clicking the system tray icon and then clicking **Monitor Progress**.*
- *To view backup logs, click the **Logs** tab. Backup log dates are displayed in blue.*

Backups will be stored on the Storage Platform and accessible via the **Restore** tab. For more information on restoring data, see Chapter 7, "Restores".

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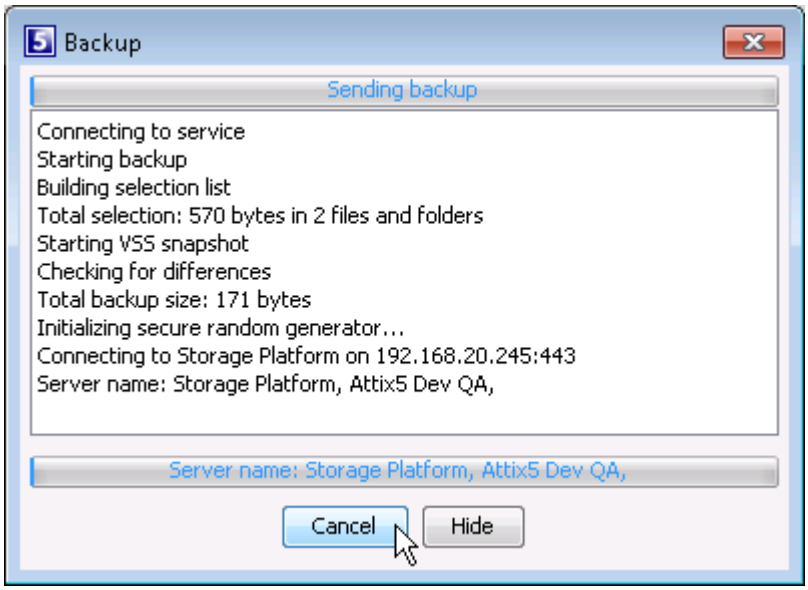
Cancelling a backup

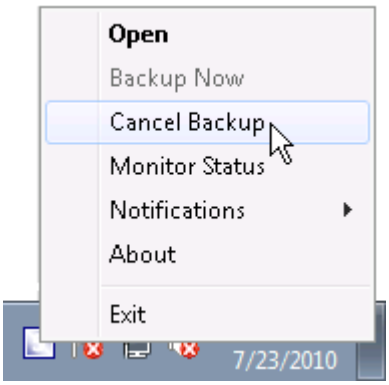
Once a backup is in progress, you can cancel the process via the Backup progress window or using the system tray icon.

To cancel a backup:

1. Perform one of the following actions:
   a) In the **Backup** progress window, click the **Cancel** button.



   b) Alternatively, you can right-click the runner icon in your system tray, and then click **Cancel**.



2. In the confirmation dialog box that appears, click **Yes**.

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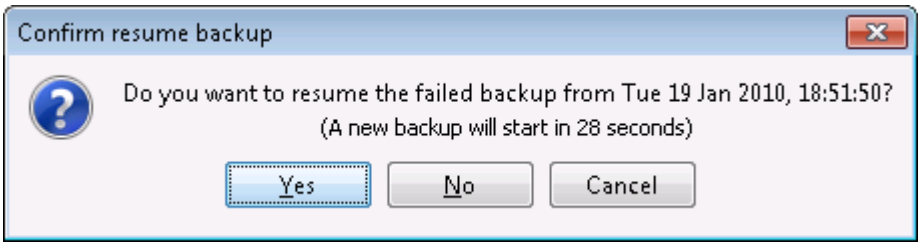
Resuming a backup

By default, the Backup Client tries to connect to the Storage Platform four times before cancelling the backup process. If, however, the previous backup was not successful and a manual backup is initiated, the Backup Client will display the prompt: "**Do you want to resume the failed backup...?**" with a 30 second countdown.


Confirm resume backup
Do you want to resume the failed backup from Tue 19 Jan 2010, 18:51:50?
(A new backup will start in 28 seconds)
Yes
No
Cancel

- Click **Yes** to instruct the Backup Client to try to continue from where the process failed during the previous backup,
- Click **No** to initiate a new backup or
- **Cancel** to return to the Backup Client application window.

Note:

- *You can only resume a backup if the backup completed the Processing stage.*
- *A new backup will be initiated automatically after the countdown has elapsed.*

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7. Restores

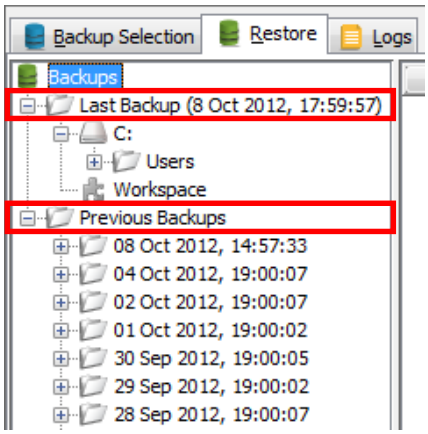
On the **Restore** tab, you can browse a tree structure representation of all successful backups and their files and folders.

How to restore

The following sections describe how to select data to restore, start the restore process, and search for specific backed up files.

Selecting data to restore

On the **Restore** tab, the Restore tree gives you access to backed up files via two main nodes: **Last Backup** and **Previous Backups**.



The **Last Backup** node contains the file/folder structure of the last successful backup and displays the date and time it occurred in parentheses "( )".

> *Note: Restores done from the **Last Backup** node are typically faster than those done from the **Previous Backups** node as the Backup Client may be able to retrieve the data from the cache instead the Storage Platform.*

When you expand the **Previous Backups** node, the Backup Client retrieves the list of previous backups from the Storage Platform and displays them in the tree.

To select and restore data from the last backup:

1. Click the **Restore** tab.
2. Expand the **Last Backup** node to view the files/folders.
3. Include a single file by clicking the icon next to the file or by right-clicking the file name and then clicking **Include**. Each included file is displayed with a green icon: .
4. Include an entire folder by right-clicking the folder and then clicking **Include folder**. Each included folder is displayed with a green folder icon: .
5. If an entire folder is included but you wish to exclude a particular file or subfolder, right-click the file or folder icon, and then click **Exclude** or **Exclude Folder**. Excluded items are displayed with red icons: or . Included folders that have some files or subfolders excluded are green with a red tint: .
6. Once all the files and folders to be restored are selected, start the restore process by clicking **Restore** on the **File** menu or the **Restore** button on the toolbar. For information on the restore options available, see "Restoring data" later in this chapter.

To select and restore data from previous backups:

1. Click the **Restore** tab.
2. Expand the **Previous Backups** node to connect to the Storage Platform and retrieve a list of all previous backup dates.

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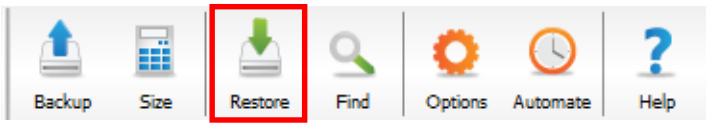
3. Expand the relevant backup node, and then click the folder/directory containing the data.
4. Include a single file by clicking the icon next to the file or by right-clicking the file name and then clicking **Include**. Each included file is displayed with a green icon: .
5. Include an entire folder by right-clicking the folder and then clicking **Include folder**. Each included folder is displayed with a green folder icon: .
6. If an entire folder is included but you wish to exclude a particular file or subfolder, right-click the file or folder icon, and then click **Exclude** or **Exclude Folder**. Excluded items are displayed with red icons: or . Included folders that have some files or subfolders excluded are green with a red tint: .
7. Once all the files and folders to be restored are selected, start the restore process by clicking **Restore** on the **File** menu or the **Restore** button on the toolbar. For information on the restore options available, see "Restoring data" below.

Restoring data

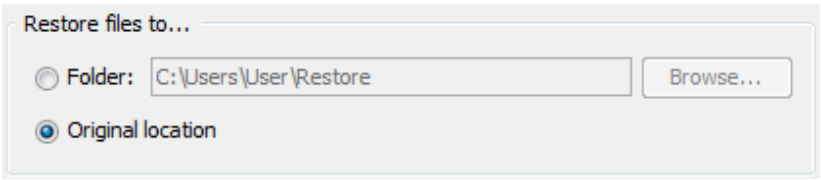
After you have selected the files and folders to restore, you can start the restore process as described below.

To start the restore process:

1. On the **File** menu, click **Restore**. Alternatively, click the **Restore** button on the toolbar:



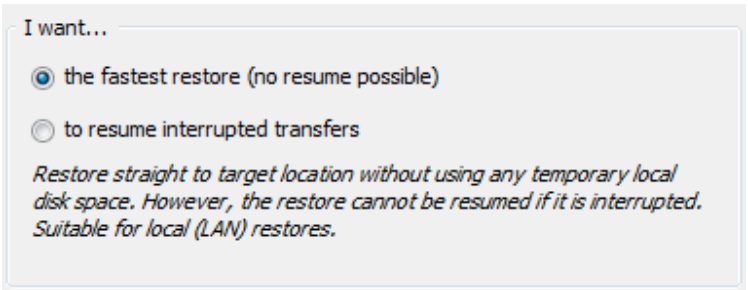
The **Restore** dialog box will prompt you for a restore location:



2. Select **Original location** to restore the files to the same location that they were backed up from or select **Folder** and then browse to a new location.

> *Warning: If **Original location** is selected, the restored files will overwrite any existing files with the same name in that location. A warning will, however, be displayed before the Backup Client overwrites any files.*

3. In the I want... section, select either the fastest restore (no resume possible) or to resume interrupted transfers depending on your requirements.


I want...
the fastest restore (no resume possible)
to resume interrupted transfers
Restore straight to target location without using any temporary local disk space. However, the restore cannot be resumed if it is interrupted. Suitable for local (LAN) restores.

4. Click the **Show advanced options...** link to display the advanced restore options. You can now specify the rest of the restore options by selecting or clearing the following check boxes:

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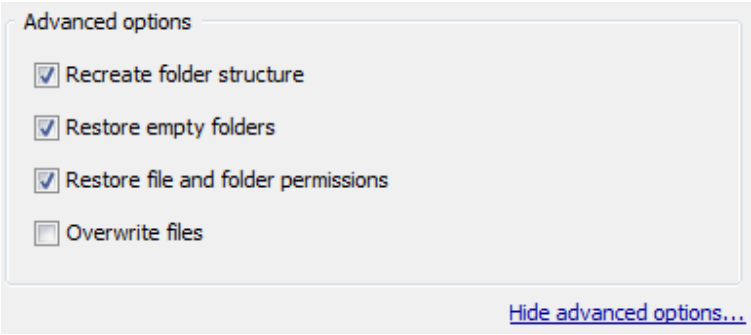


a. **Recreate folder structure** – This option is selected by default. It instructs the Backup Client to recreate the folder structure in the restore folder. Clear this check box if you wish to restore the files to a single folder.

> *Note: If restoring files from different folders with the same file names, you need to recreate the folder structure to prevent overwriting the files*

b. **Restore empty folders** – If the **Recreate directory structure** option is selected, you can select this check box to recreate empty folders.

> *Note: This option is only available when Recreate directory structure is selected.*

c. **Restore file and folder permissions** – Clear this check box if you do not wish to restore the file and folder permissions. You would typically only select this option after a complete server failure (to restore files before user accounts are re-created).

d. **Overwrite files** – Select this check box if you do not want the Backup Client to prompt you before overwriting an existing file.

5. Click **Restore**.

> *Note: You can view restore logs on the **Logs** tab. Restore log dates are displayed in green.*

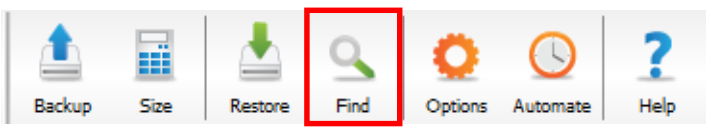
Finding files in backups

To find a specific backed up file, it may be easier to use the **Find** function than to browse the Restore tree.

You have the option to scan only your last backup (locally), or you can connect to the Storage Platform and search through previous backups.

To search for a file in your latest backup:

1. On the **File** menu, click **Find Files in Backups**. Alternatively, click the **Find** button on the toolbar:



2. Type the file name or part thereof in the **File name** box, and then click **Find.**

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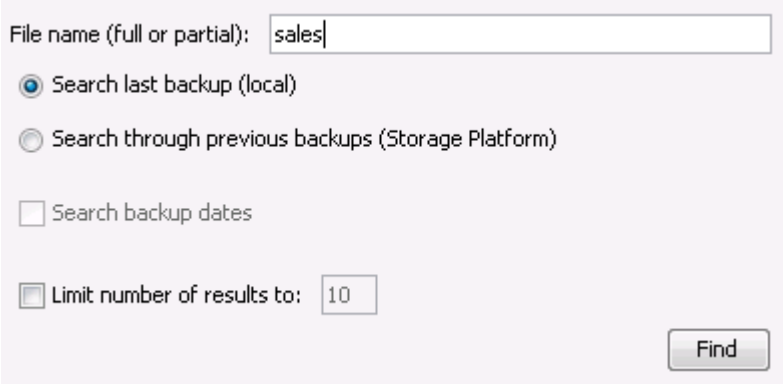
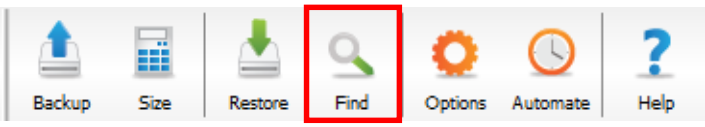


Example: If "sales" is searched for, the Backup Client will display a list of all files in the last backup containing "sales" in the filename.

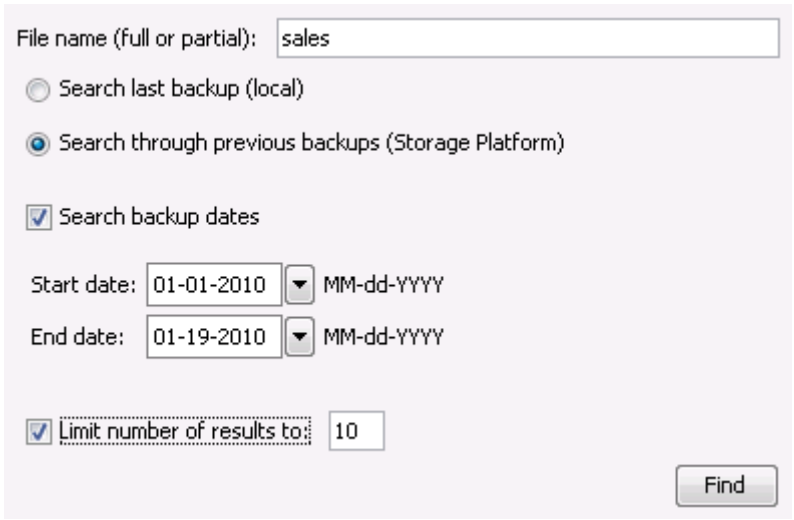
*Tip: Use the * and ? wildcards for advanced search queries.*

To search for a file in previous backups:

1. On the **File** menu, click **Find Files in Backups**. Alternatively, click the **Find** button on the toolbar:



2. Type the file name or part thereof in the **File name** box**.**
3. Select the Search through previous backups (Storage Platform) check box.
4. If you wish to limit the search to particular dates, select the **Search backup dates** check box and then use the **Start date** and **End date** boxes to specify a time period.
5. To limit the number of results that display, select the **Limit number of results to** check box and then type a number in the box provided.
6. Click **Find**.



*Tip: Use the * and ? wildcards for advanced search queries.*

*Note: If **Search backup dates** is selected, the **backup date** is used for the search instead of the **file created** or **file modified** date.*

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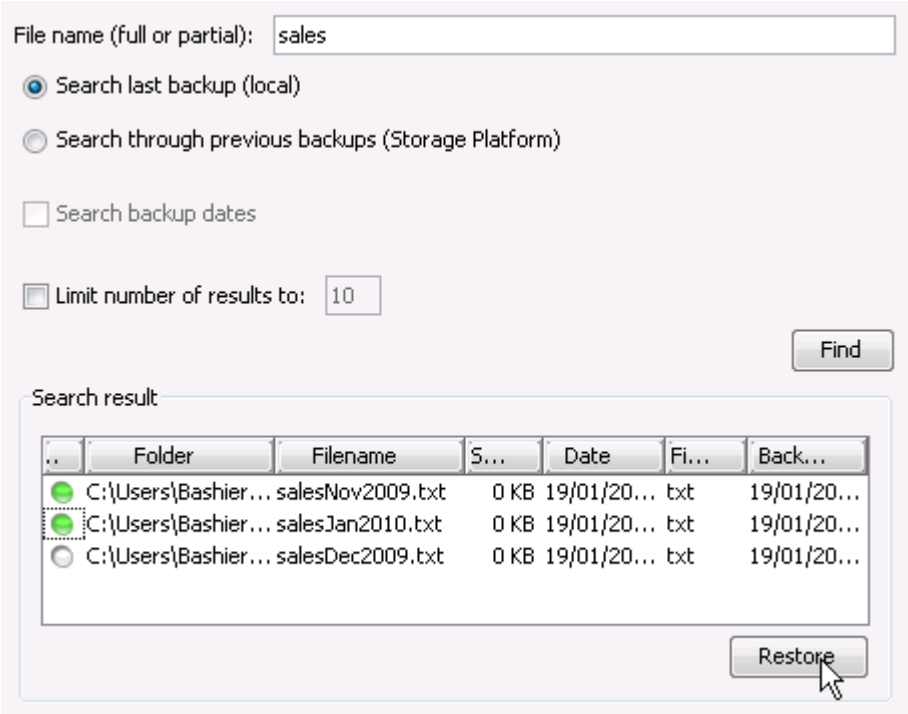
To restore files from the Find Files in Backup dialog box:

1. In the search results list, include the files to restore by clicking the icons next to the file names or by right-clicking each file name and then clicking **Include**.
2. Click the **Restore** button.



The **Restore Options** dialog box will appear, enabling you to specify the location in which to save the restored files. For more information on restore options, see "Selecting data to restore" earlier in this chapter.

Restoring a backup selection

By default, with every backup performed, a copy of the backup selection is saved on the Storage Platform. For more information on backup selection, see "Selecting data to back up" earlier in this chapter.

This enables you to restore, not only your backed up files and folders, but the selection you used to back them up as well.

Note: This is especially useful in disaster recovery cases, as it enables you to restore your entire backup setup to perform exactly as it did at the last backup.

To restore a backup selection:

1. Click the **Restore** tab.
2. Expand the relevant backup folder, and then click the **Workspace** node.

3. In the right-hand pane, click the icon next to the name of the backup set to include it for restore. If you have not enabled multiple backup sets (see *Multiple backup sets* in Chapter 9, "Options and settings"), include the only entry that displays.

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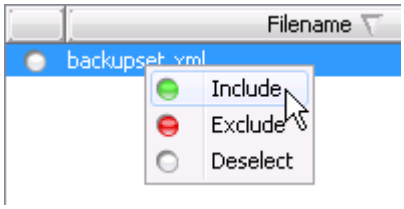
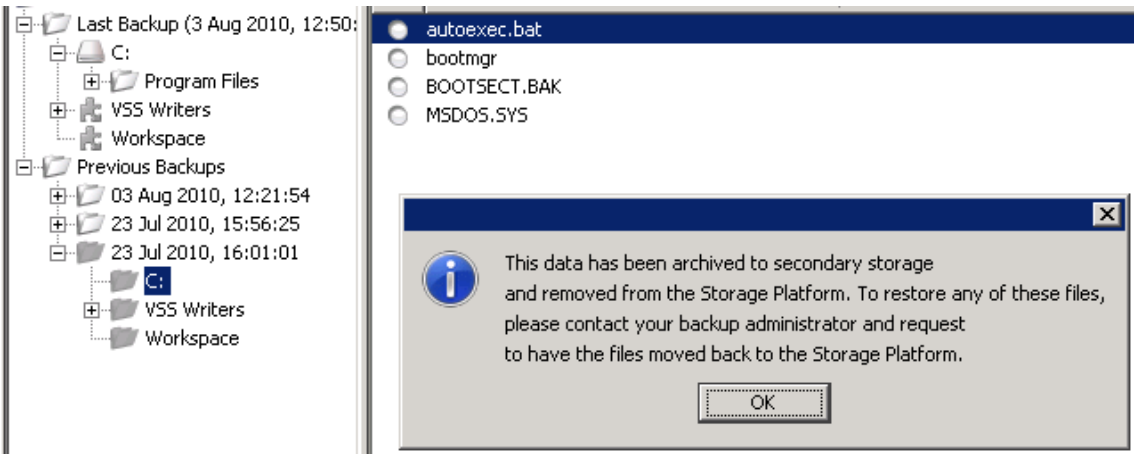


4. Click the **Restore** button on the toolbar.
5. Select the appropriate restore options. (See "Selecting data to restore" earlier in this chapter.)
6. Click **Restore**.

The backup selection will be restored to the location specified in the restore options.

Restoring archived data

Attix5 Pro allows Backup Administrators to archive Backup Clients' data to tape or another disk drive using the Hierarchical Storage Management (HSM) feature. Once data has been archived, the backups will display in the Restore tree as greyed out folders, allowing you to browse the file/folder structure of the backups. However, if you try to restore archived data, you may receive a message informing you that the data has been archived to secondary storage, as illustrated in the screenshot below.



*Note: Grey folders indicate archived data. However, if you do not see these folders in the **Restore** tree, it does not mean that no archived backups are available. In such cases, please consult your Backup Administrator for further details about archived backups.*

You can access archived data by requesting that your Backup Administrator import the HSM data to the Storage Platform. Once the data has been imported, it will be available for restore in the same manner as all other backups.

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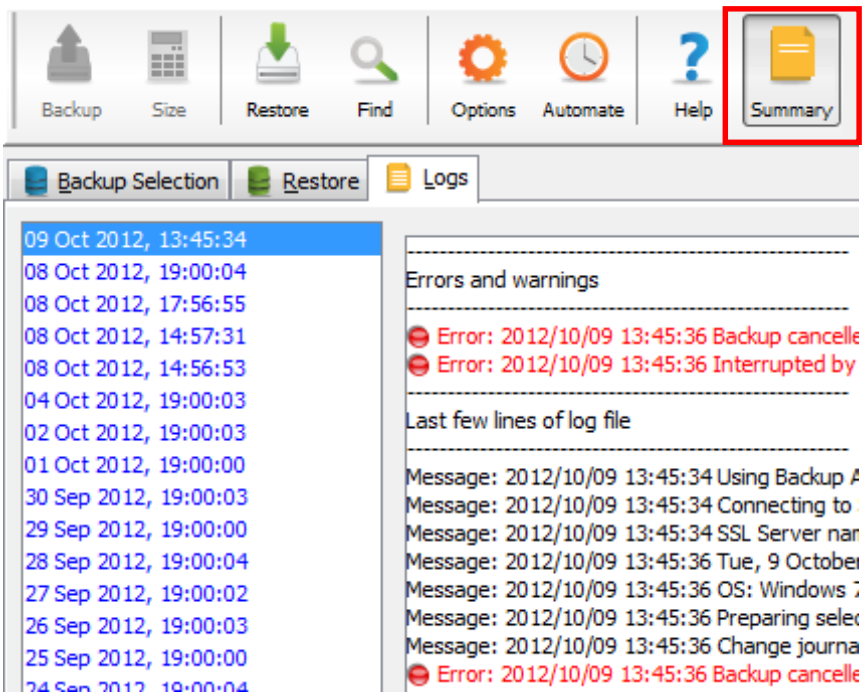
8. Logs

The Backup Client logs all backup and restore processes and their results in log files that you can view on the **Logs** tab. The following sections describe how to access log files and modify their settings.

Accessing log files

The **Logs** tab in the Backup Client provides detailed information about each backup and restore. An additional toolbar button appears when the **Logs** tab is opened: the **Summary** button. Use the button to view only errors and warnings and the last 14 lines in the log file.



*Tip: You can use the **Up** arrow, **Down** arrow, **Page Up**, **Page Down**, **Home** and **End** keys to navigate the log.*

Changing log file settings

You can specify your logging preferences on the Logging page in the **Options and Settings** dialog box.

Modifiable settings include:

- level of detail included
- date inclusion/exclusion in time stamp
- log file retention period

For information on configuring the log file settings, see *Logging* in Chapter 9, "Options and settings".

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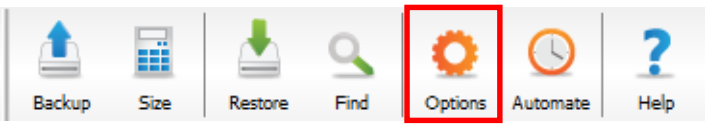
9. Options and settings

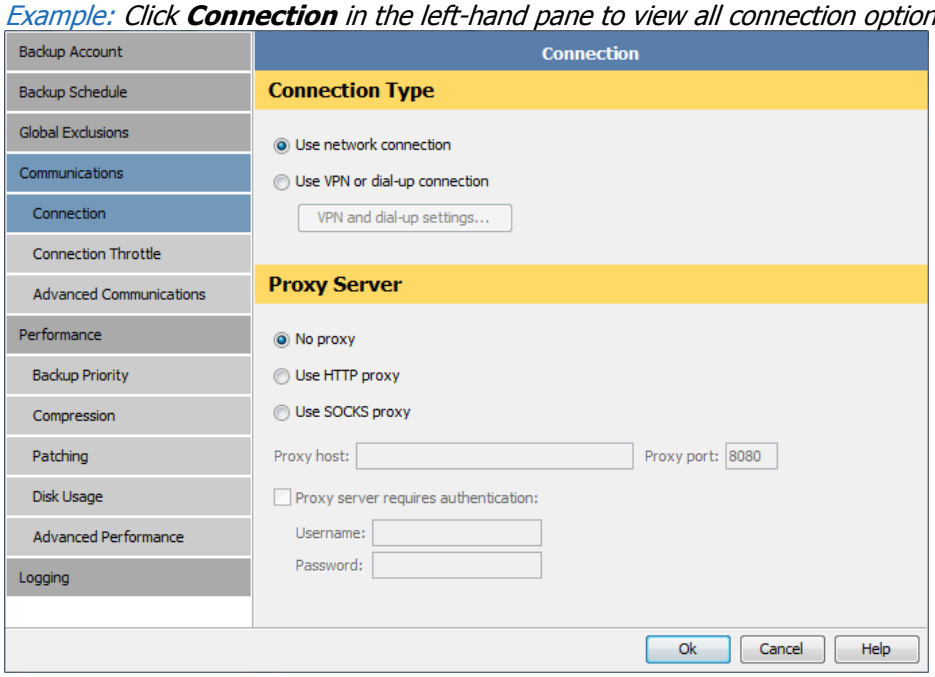
To access the Options and Settings dialog box:

- On the **Tools** menu, click **Options**.
- Alternatively, click the **Options** button on the toolbar:



The various options and settings are grouped in the left-hand pane according to their functions. Click an item on the left to view the full set of options related to that function.

*Example: Click **Connection** in the left-hand pane to view all connection options on the right:*



*Warning: The **Options and Settings** dialog box controls advanced features in the Backup Client. Please read through this section carefully before changing any settings. Incorrect settings could cause critical errors.*

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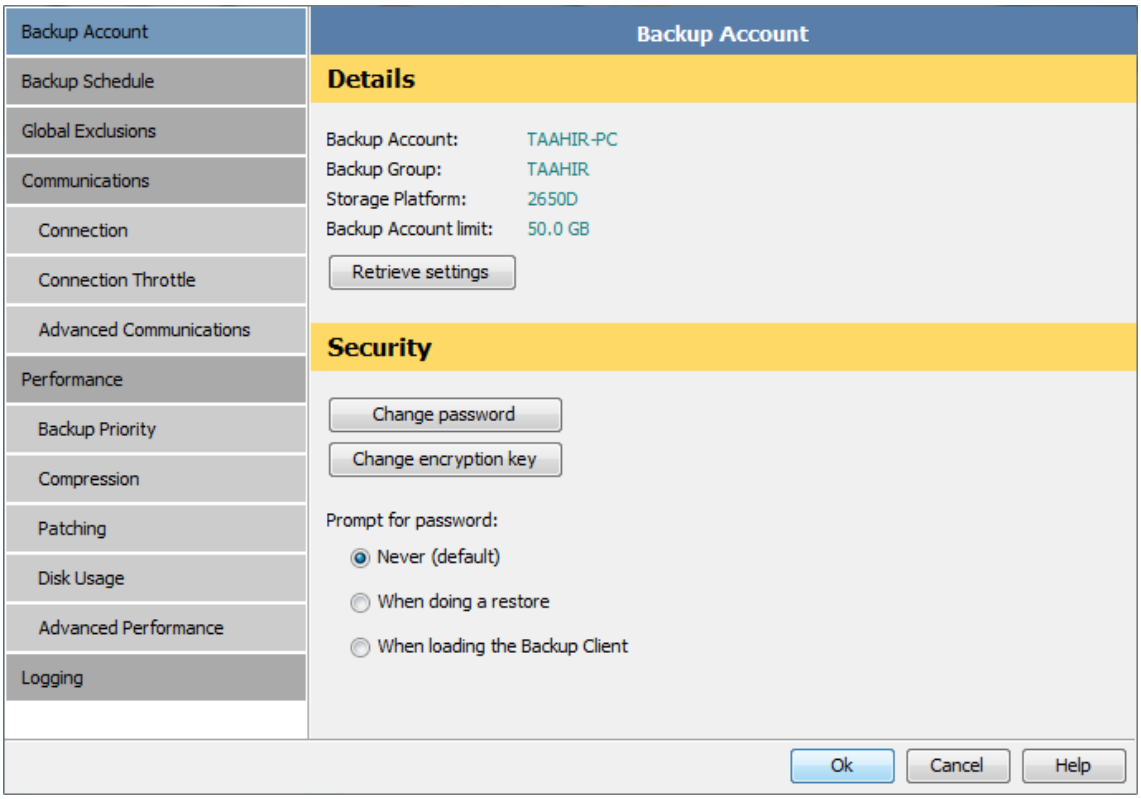
Backup Account

You can use the Backup Account page in the **Options and Settings** dialog box to:

- Retrieve Backup Account settings
- Modify security settings



The Backup Account page consists of the following areas:

- Details
- Security

Details area

This area displays your Backup Account information as it is configured on the Storage Platform. You can use the **Retrieve settings** button to retrieve your Backup Account details from the Storage Platform.

Tip: This button is useful to verify that the Backup Account limit has been modified after requesting a change from the Backup Administrator, or to update Backup Group Profiling settings.

Security area

If you need to change your password or encryption key, click the **Change password** or **Change encryption key** buttons.

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Warning:

- *Changing the encryption key involves intensive processing on the Storage Platform and may take several minutes. You should avoid doing this unless the encryption key has been compromised.*
- *Disaster recovery is not possible without the encryption key. Please ensure that this key is kept in a safe place. THIS ENCRYPTION KEY IS NOT STORED ON THE STORAGE PLATFORM AND CANNOT BE RECOVERED OR RESET IF LOST.*

You can select whether or not the Backup Client should prompt for the Backup Account password. Three options are available:

- **Never (default)**: The Backup Client remembers the Backup Account password when doing a backup or restore.
- **When doing a restore**: The Backup Client prompts for the Backup Account password when opening the **Restore** tab.
- **When loading the Backup Client**: The Backup Client prompts for the Backup Account password when opening the Backup Client and the **Restore** tab.

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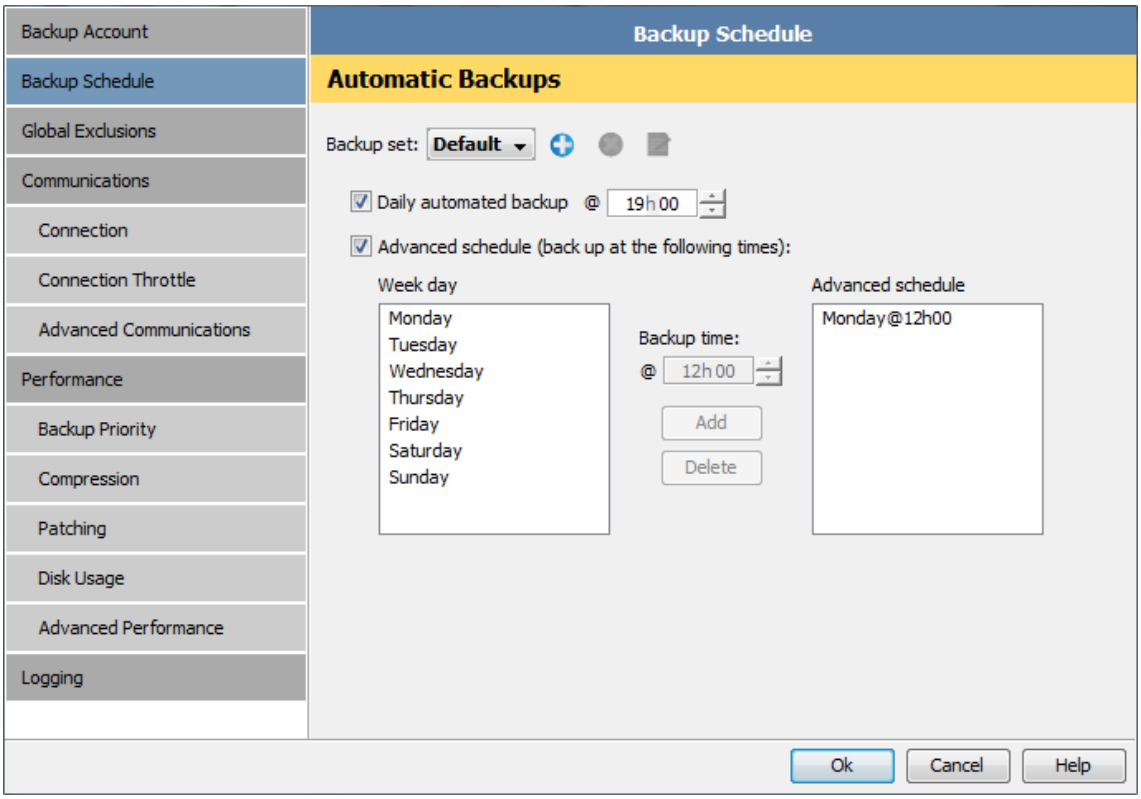
Backup Schedule

You can use the Backup Schedule page in the **Options and Settings** dialog box to:

- Enable/disable a daily automated backup
- Create advanced automatic backup schedules



*Note: If using multiple backup sets, use the **Backup set** drop-down at the top of the dialog box to specify which backup set schedule you wish to configure. For more information, see Multiple backup sets in Chapter 9, "Options and settings".*

Daily automatic backups are enabled by default unless disabled during the Setup Wizard. If disabled, you can enable it by following the instructions below.

To enable a daily automated backup:

1. Select the **Daily automated backup** check box.
2. Specify a time in the associated box.
3. Click **Ok**.

To create an advanced backup schedule:

1. Select the Advanced schedule (back up at the following times) check box.
2. In the **Week day** box, select the day on which a backup should be initiated.
3. Specify the time in the **Backup time** box.

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4. Click the **Add** button to add the day and time to the **Advanced schedule** box.
5. Repeat steps 2 to 4 above until you have added all desired schedules to the Advanced schedule box.

To disable automatic backups (not recommended):

1. Clear the Daily automated backup and Advanced schedule check boxes.
2. Click **Ok** to close the **Options and Settings** dialog box.

Warning: This option is not recommended. If an automated backup schedule is not created, backups will have to be run manually. Enabling automatic backups is strongly advised.

For detailed instructions on how to enable and schedule automatic backups, see *Scheduling automatic backups* in Chapter 6, "Backups".

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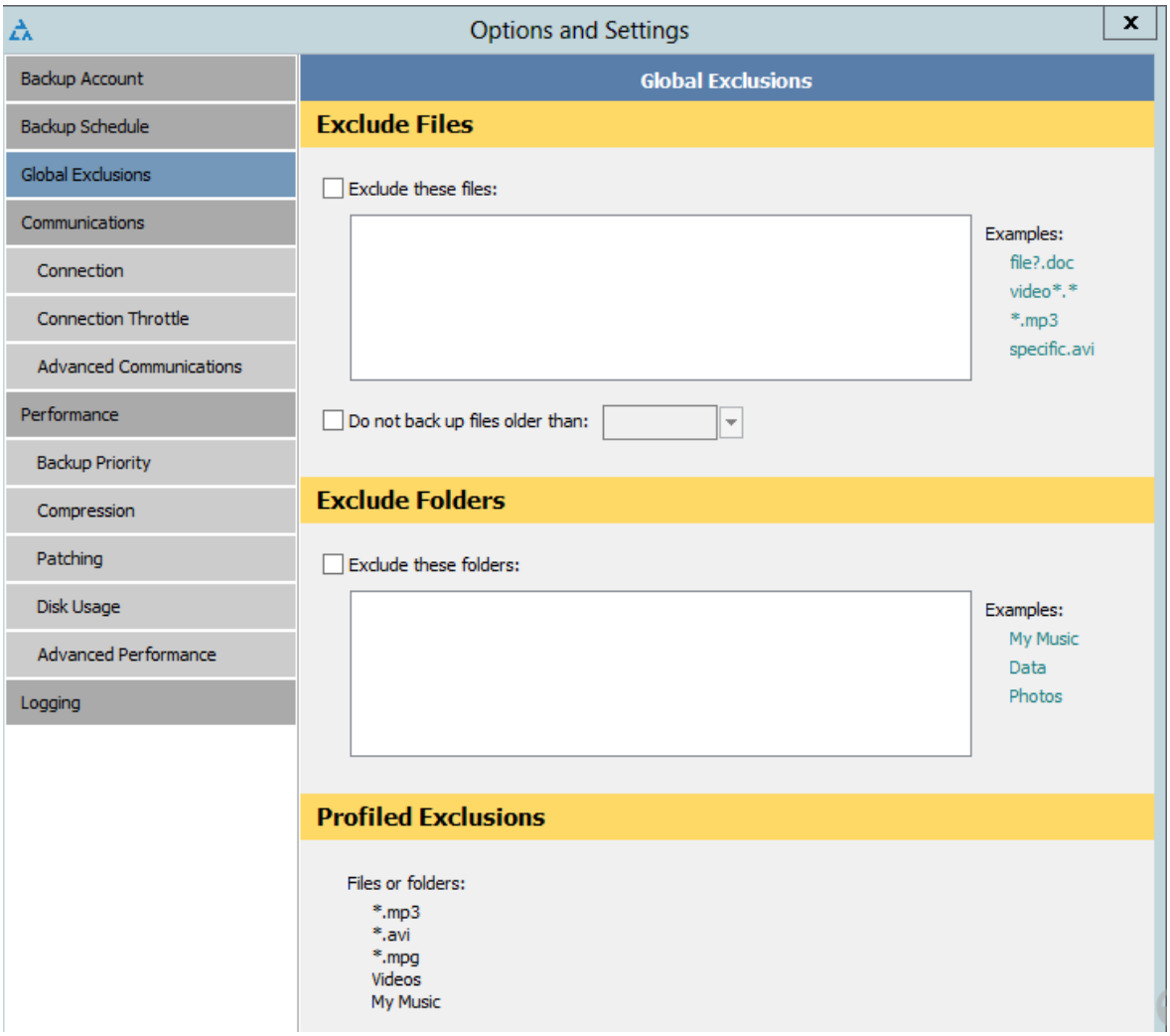
Global Exclusions

You can use the Global Exclusions page in the **Options and Settings** dialog box to:

- Exclude files globally
- Exclude folders globally
- View profiled global exclusions



The Global Exclusions page in the **Options and Settings** dialog box consists of the following areas:

- Exclude Files
- Exclude Folders
- Profiled Exclusions

Exclude Files area

In this area, you can specify that files with certain file names, extensions or last modified dates be excluded from all backups.

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To exclude files based on their file names or extensions:

1. Select the **Exclude these files** check box.
2. Type the file name(s) and/or file extension(s) in the box provided; separated by semicolons or listed beneath each other.

*Tip: You can use wildcards. E.g. *.mp3 will exclude all MP3 files from backups.*

*Example: To exclude all MP3 and AVI files, specify *.mp3 and *.avi in the text box. Separate entries with a semicolon or type each on a new line.*

3. Click **OK**.

To exclude files based on their 'last modified' dates:

1. Select the **Do not back up files older than** check box.
2. In the box provided, type the date in dd-mm-yyyy format. Alternatively, click the drop-down arrow and select a date.
3. Click **OK**.

Exclude Folders area

In this area, you can exclude certain folders from all backups.

To exclude folders:

1. Select the **Exclude these folders** check box.
2. Type the folder names in the box provided; separated by semi-colons or listed on separate lines.

Note:

- *Wildcards and path separators are not supported in this area.*
- *Entries are case sensitive.*

3. Click **OK**.

Profiled Exclusions area

This area will indicate if any file/folder global exclusions have been set by the Backup Administrator. Since profiled settings can only be changed from the Storage Platform Console, contact your Backup Administrator if there is a problem with the files/folders being excluded.

Note: Profiled exclusions are combined with the user's exclusions in the Backup Client. However, profiled exclusions take precedence over the user's inclusions.

For more information, see *Profiling* in the *Advanced Tools* section later in this chapter.

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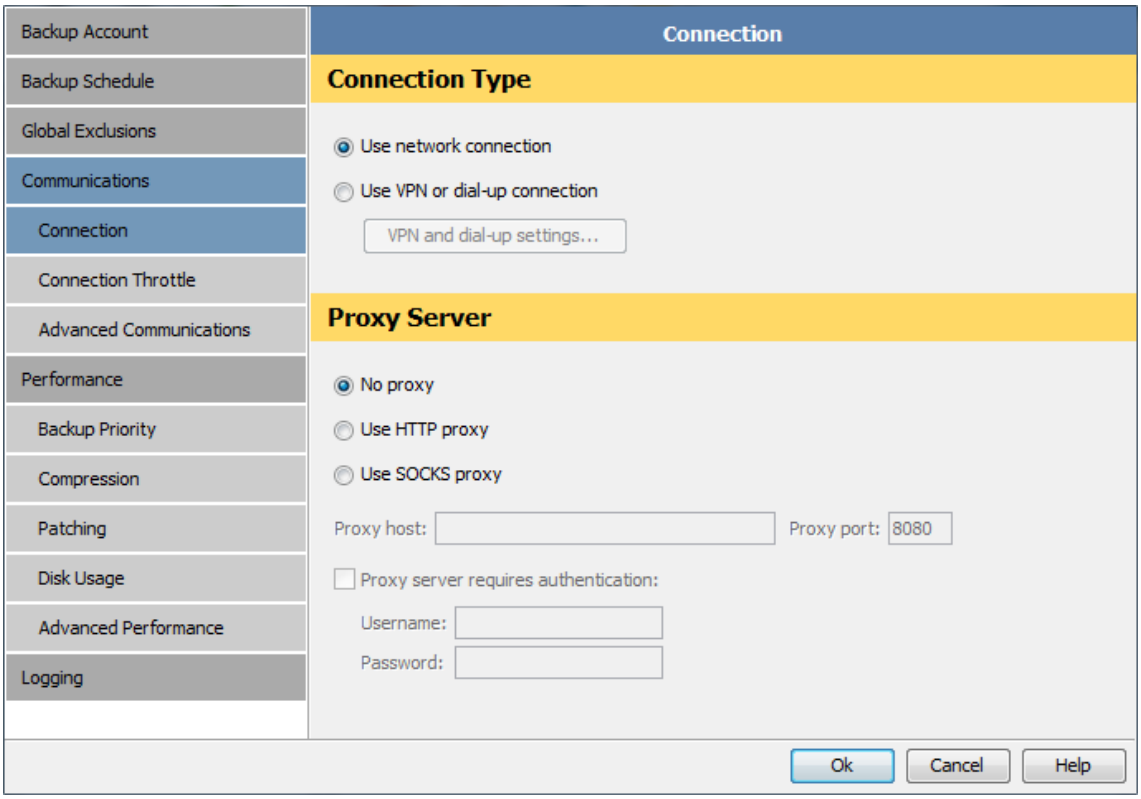
Connection

You can use the Connection page in the **Options and Settings** dialog box to:

- Modify Storage Platform connection settings
- Enable/disable/configure proxy server details



The Connections page consists of the following areas:

- Connection Type
- Proxy Server

Connection Type area

In this area, you can change the type of connection that the Backup Client uses to connect to the Storage Platform. You can choose between a network or VPN/dial-up connection.

*Note: The **VPN or dial-up settings...** button is enabled if you select **Use VPN or dial-up connection**. Click this button to select an existing VPN or dial-up connection configured on the computer and then supply the username and password for that account.*

Proxy Server area

In this area, you can specify whether or not the Backup Client should connect to a proxy server when connecting to the Internet. If you select that it should, you can specify the proxy server details in the available boxes.

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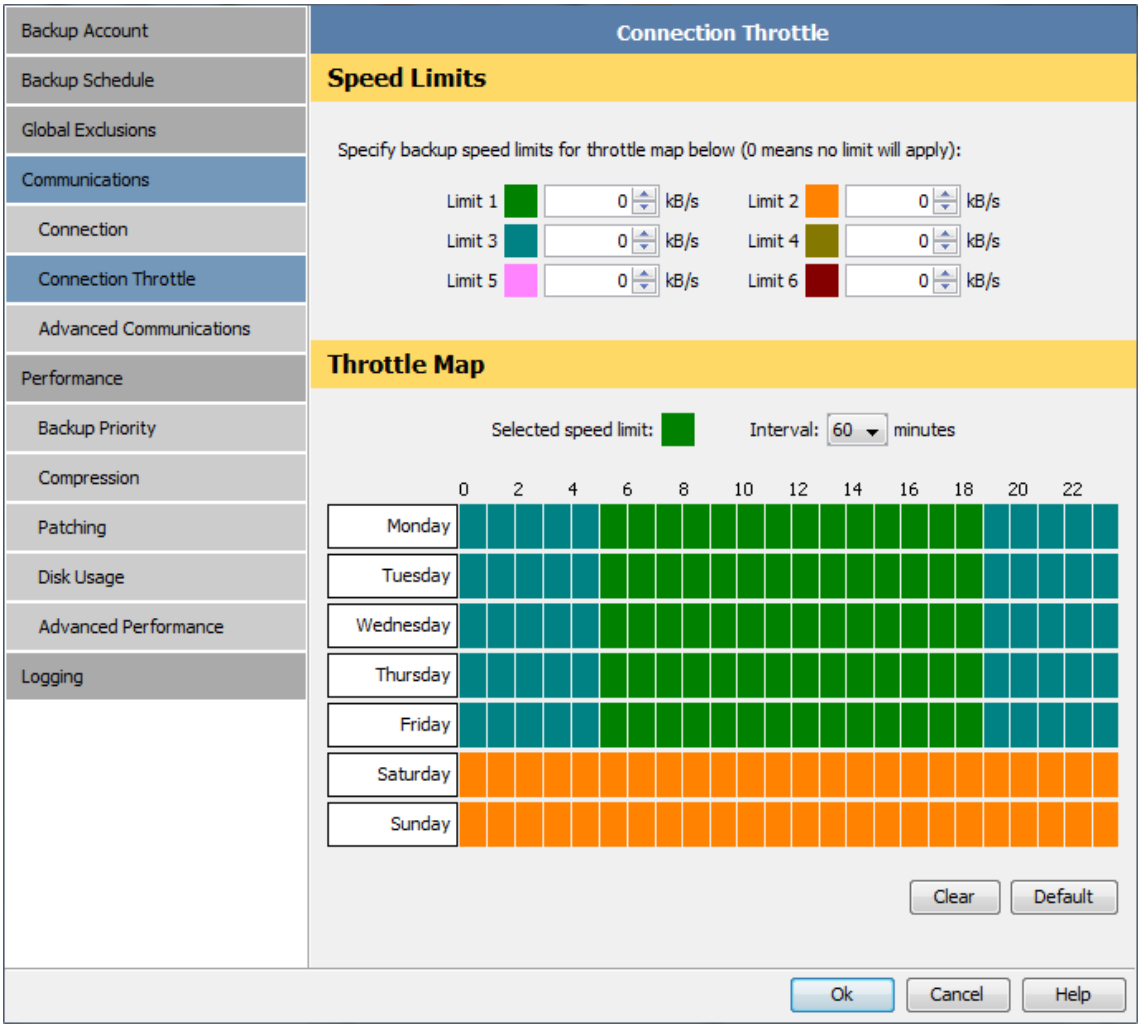
Connection Throttle

The Connection Throttle page in the **Options and Settings** dialog box enables you to specify the Backup Client's bandwidth usage speed limits. You can do this by creating a throttle map. Backup data will then only be transferred at the specified speed limits during each interval.



The Connection Throttle page consists of the following areas:

- Speed Limits
- Throttle Map

Speed Limits area

In this area, you can specify one or more speed limits (in kilobytes per second) that can be applied when sending backup data to the server.

To specify a speed limit:

Choose a colour to represent the limit and specify the limit in that colour's **Limit** box.

You can now schedule the speed limits in the Throttle Map area as described below.

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Note: A limit of 0 indicates that no limit will be applied.

Throttle Map area

In this area, you can indicate when the speed limits specified in the Speed Limits area should apply by creating a throttle map.

*Tip: By default, a throttle map is provided with different colours indicating week day office hours, out-of-office hours and weekends (using intervals of 60 minutes). You can either set speed limits for the colours used in this default map or you can click the **Clear** button and create a new map by following the instructions below.*

To create a throttle map:

1. In the **Interval** box, specify the number of minutes that each block in the graph should represent.
2. In the Speed Limits area, click a speed limit colour. Alternatively, click the **Selected speed limit** box to cycle between the different limits.
3. In the Throttle Map area, click the schedule interval boxes you wish to apply the limit to. The colour of the selected interval boxes will change to match that of the chosen limit.

   *Tip: Should you wish to revert to the default throttle map at any point in time, click the **Default** button.*
4. Click **OK**.

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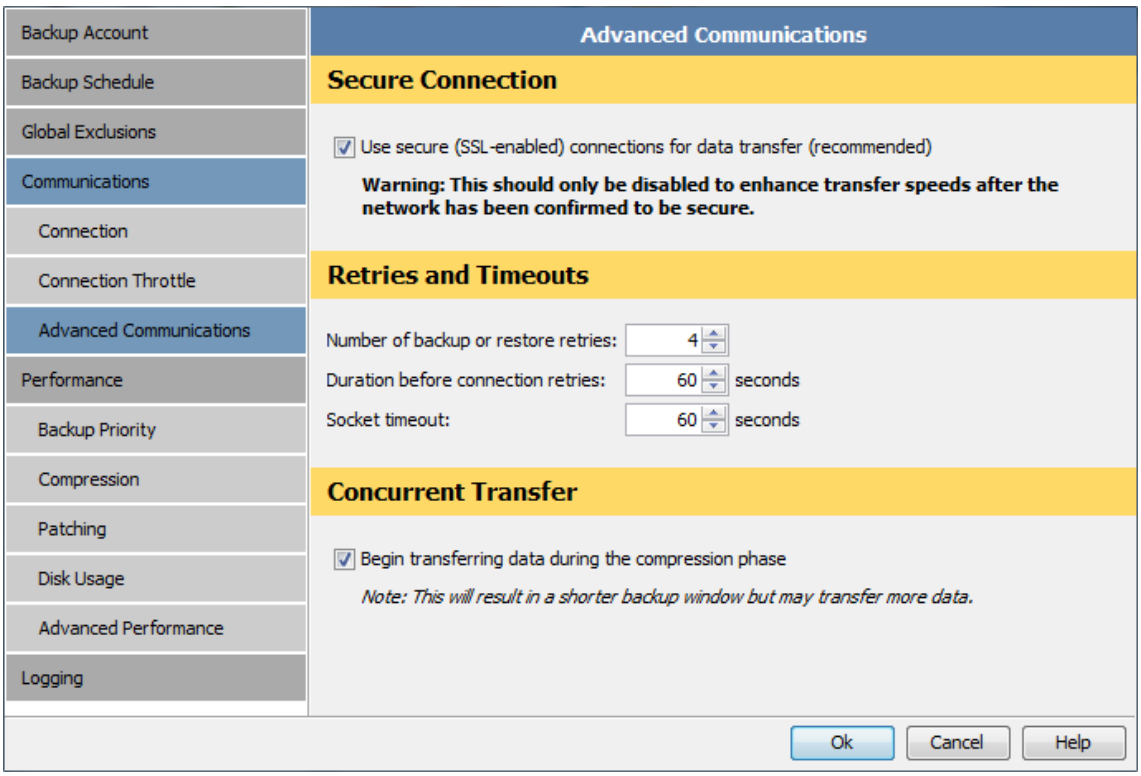
Advanced Communications

You can use the Advanced Communications page in the **Options and Settings** dialog box to configure all advanced communication settings.



The Advanced Communications page consists of the following areas:

- Secure Connection
- Retries and Timeouts
- Concurrent Transfer

Secure Connection

Use secure (SSL-enabled) connection for data transfer (recommended). This option is selected by default, enabling SSL encryption for Backup Client-to-StorageServer data transfers. Deselecting this option disables SSL encryption for data transfer. This enhances transfer speeds but should only be done within a secure network environment.

Note:

- *Disabling this feature will only have an effect on security for the actual data transfer and not the encryption of the data on the Storage Platform.*
- *Secure data transfer connections can only be disabled if the StorageServer has been configured to accept non-secure connections. If the StorageServer cannot accept non-secure connections, an SSL-enabled connection will automatically be used instead.*

Warning: Before disabling SSL encryption, first ensure that the backup environment is secure.

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Retries and Timeouts

Number of backup or restore retries

By default, the Backup Client tries to connect to the Storage Platform four times before cancelling the backup process.

Note: You are advised to increase the number of attempts when using a slow Internet connection. The backup will continue from the previous point of failure and not resend the entire backup.

Duration before connection retries

By default, the Backup Client will try to reconnect to the Storage Platform after 60 seconds, should the connection be dropped. This setting enables you to increase/decrease the duration between retries.

Socket timeout

The default socket timeout is 60 seconds. If the Backup Client is connected to the Storage Platform and there is no communication between the two, the time specified in this box (in seconds) is how long the Backup Client will stay connected before dropping the connection.

Concurrent Transfer

Begin transferring data during the compression phase

Select this option if you wish to make use of concurrent backup processing to speed up the backup process. With this setting enabled, the Backup Client compresses/patches files in the background using one thread and transmits files to the Storage Platform using a second thread as soon as the files are compressed/patched.

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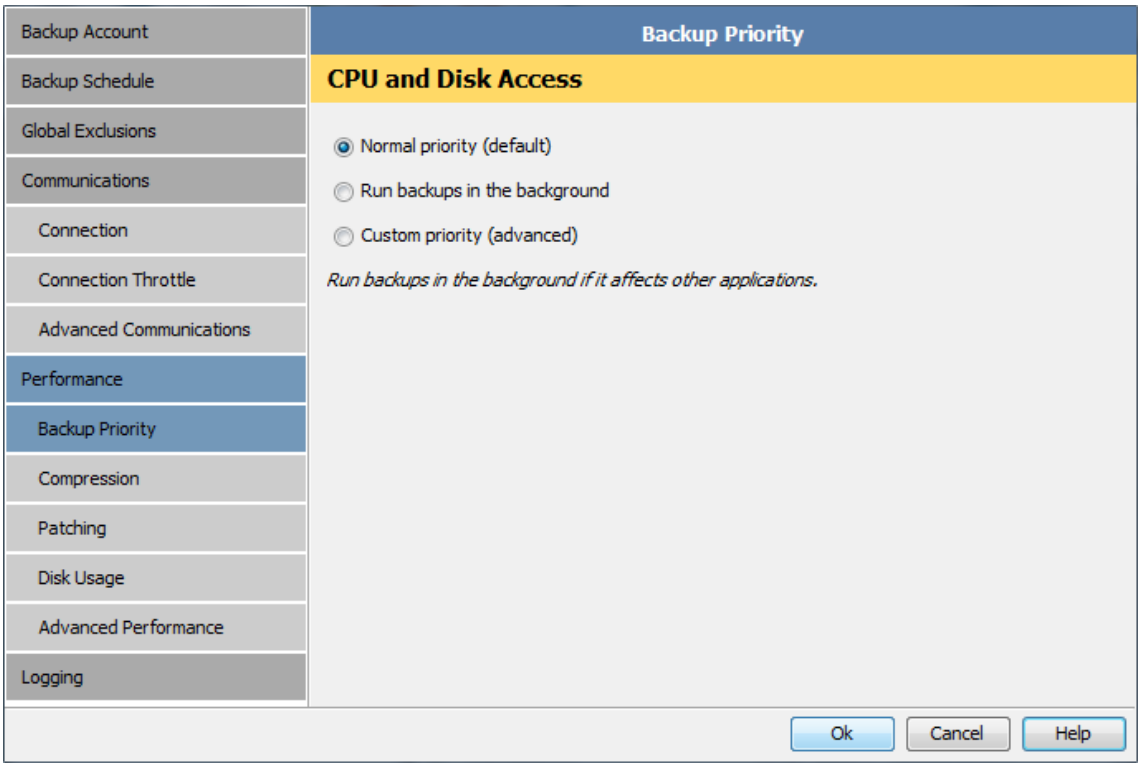
Backup Priority

You can use the Backup Priority page in the **Options and Settings** dialog box to limit CPU usage and disk access.



The Backup Client uses a fair portion of the available processing power to patch, compress and encrypt files during the backup process. The constant disk access that the backup process requires can also reduce performance for other applications, although it ensures that the process completes as quickly as possible.

If you use the computer while it is backing up, you might experience some performance deterioration. To lessen this effect, you can choose to run backups in the background or use custom priority on Windows Server 2008 machines or lower the processor usage and/or disk access on Windows Server 2003 machines.

Windows Server 2008

On Windows Server 2008 machines, a **Run backups in the background** option enables you to instruct the Backup Client to run all backups in the background, thereby lowering the disk and CPU usage priority in Windows and allowing other applications to run faster. Alternatively, you can select **Custom priority** (which is an advanced feature) and manually set the processor usage and disk access.

Windows Server 2003

On Windows Server 2003 machines, two sliders enable you to adjust the processor usage and disk access settings to limit performance deterioration.

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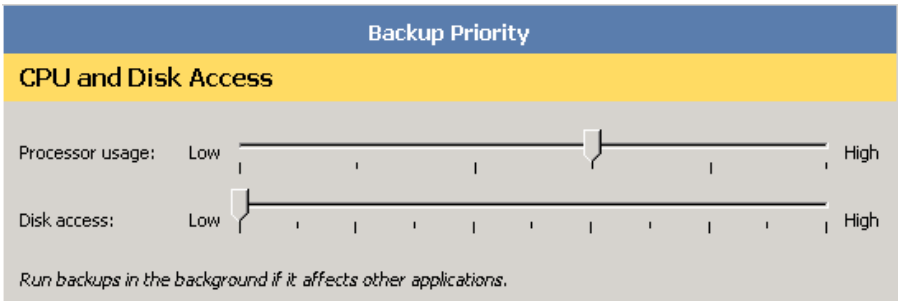

*Note: If you use the highest **Disk access** setting, the Backup Client will continuously use all available disk access to read and write to the disk, ensuring that the process completes as quickly as possible. The process will take longer if this setting is lowered but other disk-intensive applications will perform better.*

*Warning: If you use the highest **Processor usage** setting, it will affect server performance during the backup.*

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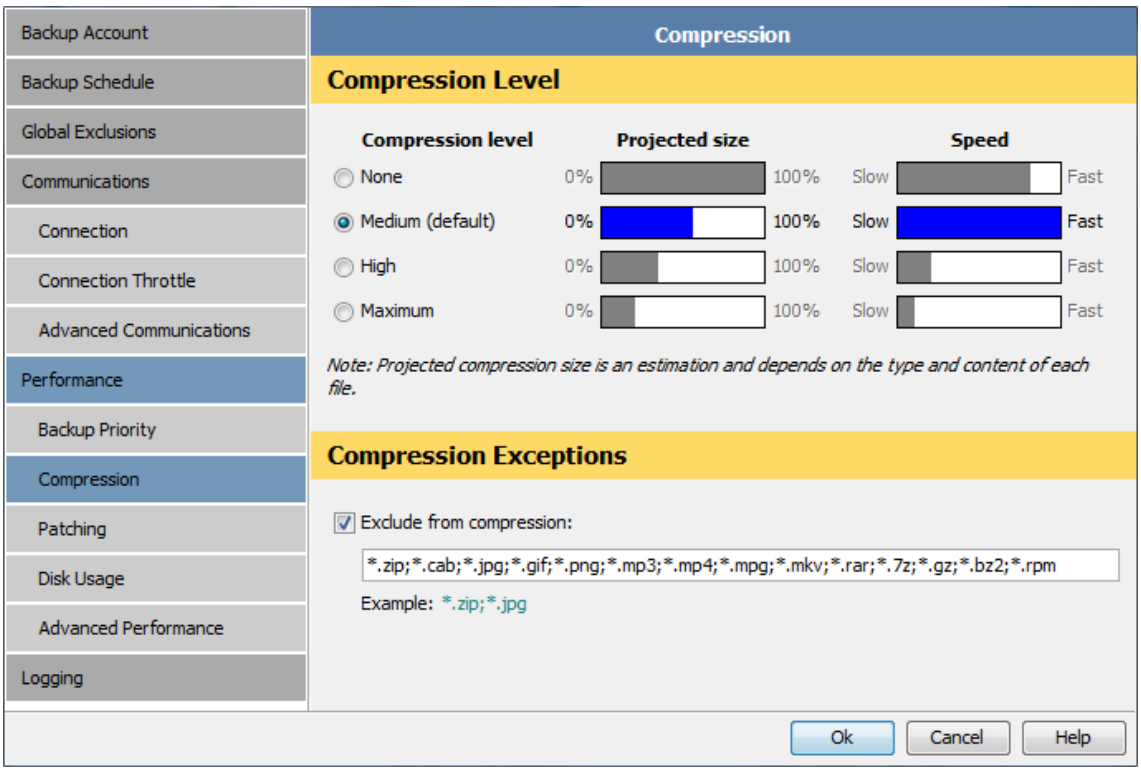
Compression

You can use the Compression page in the **Options and Settings** dialog box to configure the Backup Client compression level and exceptions.



The Compression page consists of the following areas:

- Compression Level
- Compression Exceptions

Compression Level area

The Compression Level area allows you to change the compression level by selecting the option that best suits your needs. The **Medium (default)** compression level provides the fastest speed, but the compressed files will be slightly larger than those produced using the High or Maximum options.

Compression Exceptions area

The Compression Exceptions area allows you to specify the file types that the Backup Client should not compress during the backup process.

Tip: Compression is not effective on all file types as some files may already be compressed or cannot be compressed at all. The Backup Client could waste some time and processing power trying to compress these files. This setting can be used to specify a list of file extensions that should not be compressed during the backup process. The list of file types already specified are types that typically do not compress well.

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To exclude files types from compression:

1. Select the Exclude from compression check box.
2. Type the file extensions in the box provided, separated by semi-colons.

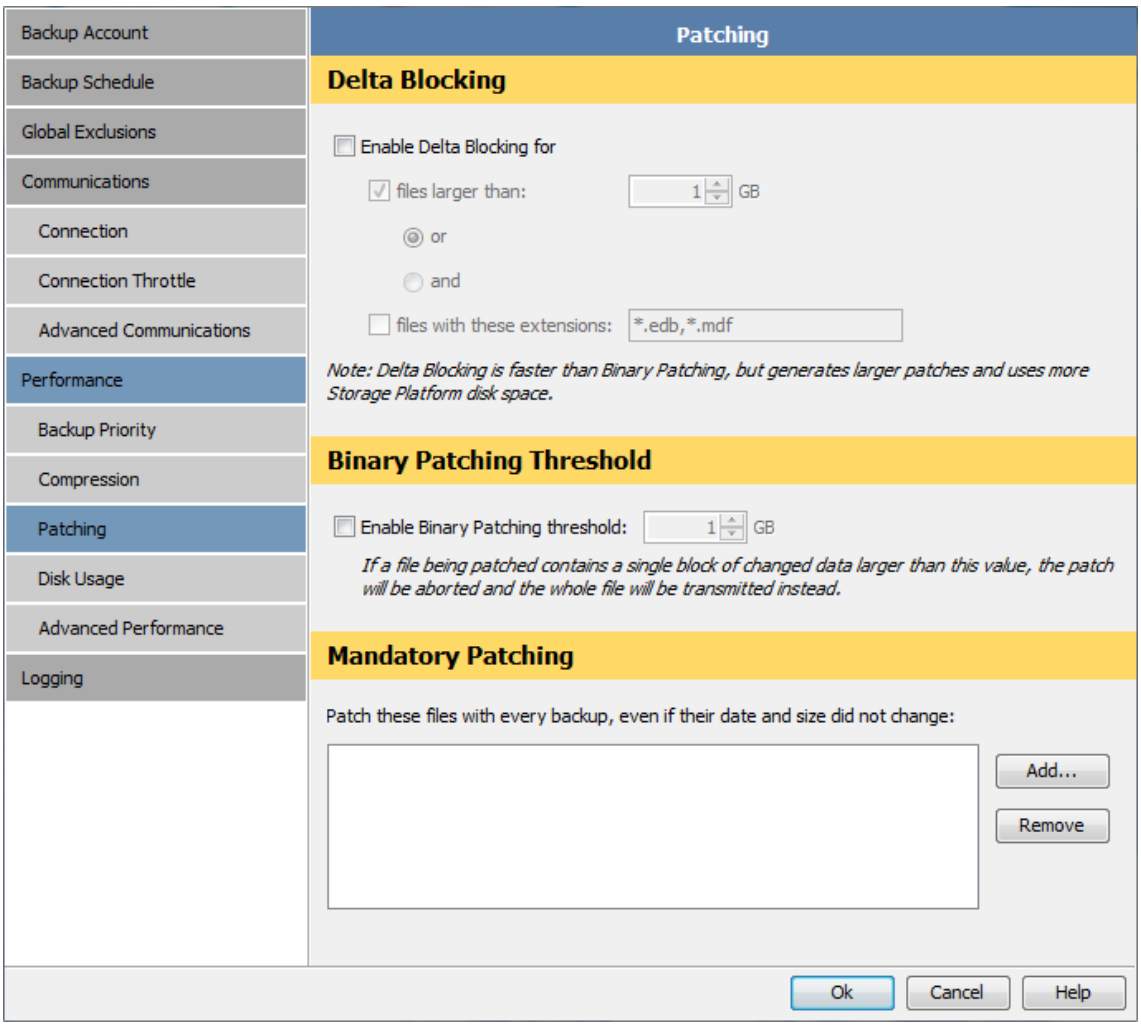
> *Tip: Compression is not effective on all file types as some files may already be compressed or cannot be compressed at all. The Backup Client could waste some time and processing power trying to compress these files. This setting can be used to specify a list of file extensions that should not be compressed during the backup process. The list of file types already specified are types that typically do not compress well.*

3. Click **OK**.

Patching

You can use the Patching page in the **Options and Settings** dialog box to:

- Enable/disable Delta Blocking
- Enable a Binary Patching threshold
- Specify mandatory patching



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The Patching page in the **Options and Settings** dialog box consists of the following areas:

- Delta Blocking
- Binary Patching Threshold
- Mandatory Patching

Delta Blocking area

Delta Blocking is an alternative to Binary Patching and compares changes on a block level. It is significantly faster than Binary Patching and does not require a complete copy of a file in the cache to calculate the patch, only a footprint file. The footprint file requires very little free disk space - 0,0006% of the original file. However, depending on the data being backed up, Delta Blocking patches can be larger than Binary patches.

Note: It is vital that you read through this section before enabling this option in your Backup Client.

To enable Delta Blocking:

1. Select the Enable Delta Blocking for check box.
2. The Delta Blocking file selection criteria can be set in two ways: by file size or file type. Select the applicable condition(s) and supply the necessary information. Any recently changed files not matching these criteria will be patched using Binary Patching.

   *Tip: You can enable both conditions by selecting both options as well as the **and** option.*

Warning: Some database files may not be suitable for Delta Blocking since data is shifted at the beginning of the file. When this happens, it will result in a patch as large as the complete file. It is advisable to closely monitor the sizes of the patches when Delta Blocking is enabled and disable it if it turns out to be ineffective.

Binary Patching Threshold area

Binary Patching is the most effective form of patching. It is CPU-intensive but will deliver the smallest patches. The process is only possible if a complete copy of an older version of the file is available in the cache.

Note: Binary Patching is enabled by default and nothing needs to be configured in this area for normal use.

Enabling Binary Patching threshold: It is possible that a file could be modified in such a way that it becomes impractical to patch it. An example would be a database that is re-indexed.

In such a case, the patching can take extremely long (it may exceed the backup window) and will eventually create a patch that is the same size as the complete file. It would be better to abort the patching and compress the new file instead. When the patching threshold is reached, patching will be aborted and the complete file will be compressed and resent to the Storage Platform.

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To specify the Binary Patching threshold:

1. Select the Enable Binary Patching threshold check box.
2. In the associated box, specify the abort threshold in gigabytes.

Note:

- *When this threshold is reached, patching will be aborted and the complete file will be compressed and resent to the Storage Platform.*
- *Patching limits should only be enabled if you have severe patching problems with large files.*

Mandatory Patching area

The Mandatory Patching area enables you to specify files to be scanned for changes, regardless of whether or not it appears that they have changed since the last backup.

Tip: Mandatory patching is useful in situations where files are held open by an application (internally the file has changed but the change is not reflected in the last modified date on the file system or in the size of the file itself).

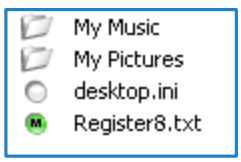
Note: VSS enables the backup of these files without impacting the running application or corrupting the files.

To include files for mandatory patching:

1. Add the files you want to include for Mandatory Patching to your backup selection before they are added to Mandatory Patching or they will not be backed up.
2. In Mandatory Patching, click the **Add** button.
3. Use the **Open** dialog box to select the file(s), and then click **Open**. The path to the file(s) will display in the associated box.
4. Click **OK** to save your settings.

*Tip: Select more than one file at a time by holding down the **SHIFT** key and selecting the files with your keyboard or mouse.*

Files selected for mandatory patching display in the Backup Selection tab with a green icon containing the letter "M": .



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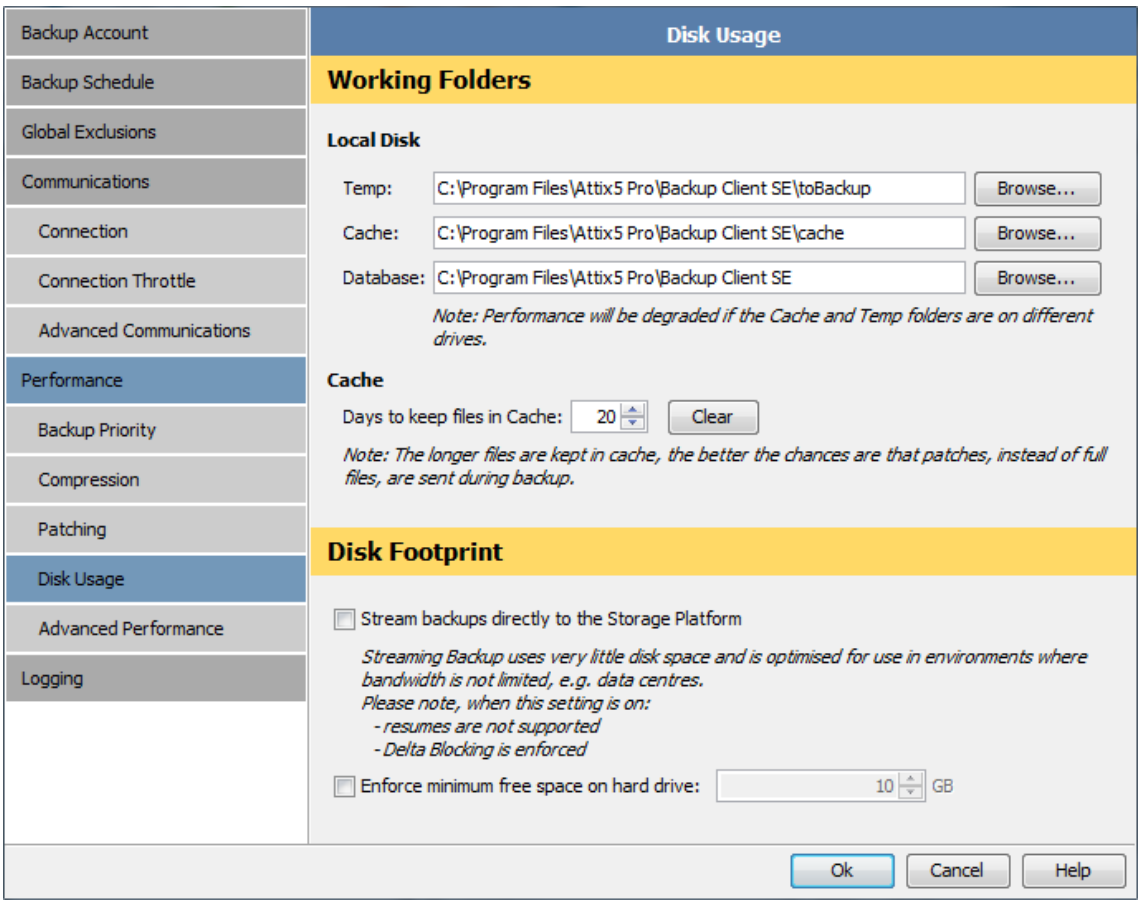
Disk Usage

You can use the Disk Usage page in the **Options and Settings** dialog box to specify the working folders and control the disk footprint.



Working Folders area

- If you have limited space on the drive where the Backup Client is installed, you can move the **Temp**, **Cache** and **Database** folders to another location.
  - **Temp** – Used as temporary workspace when the files are patched, compressed and encrypted.
  - **Cache** – Keeps a local, compressed and encrypted, copy of the selected files for a specified number of days.
  - **Database** – Compares the latest backup selection with the previous backup to determine the changes.

> *Note:*
> - *Performance will be degraded if the Temp and Cache folders are on different drives.*
> - *If you move these folders to a network share, please ensure that the Backup Client has the correct permissions to reconnect and write to that share. Storing the folders on a UNC path degrades backup performance.*

- **Days to keep files in cache -** When modifications are made to a file, the Backup Client only transmits changes to that file, as opposed to transmitting the complete file again. This is accomplished by the use of a local cache.

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By default, recently modified files are kept in the cache for 20 days, after which they will be deleted. Once a file has been flushed from the cache, a full copy will be backed up when any modifications are made to the file. The longer files are kept in the cache, the better the chance of only transmitting patches instead of full copies and thus reducing the amount of data that needs to be transmitted. If there is limited disk space available, consider shortening the time files are kept in the cache.

Note: If you specify 0 days, patching is disabled. All files in the cache will be deleted, and full copies of changed files will be transmitted to the Storage Platform during each backup.

- To delete the current cache, click the **Clear** button. If the cache is deleted, full copies of the selected files will be re-sent to the Storage Platform during the next backup.

Disk Footprint

To enable Streaming Backup:

Select the **Stream backups directly to the Storage Platform** check box. Streaming Backup causes data to be transferred to the Storage Platform without being written to temporary storage first. Streaming Backup has the following benefits:

- Extremely fast
- Uses very little disk space
- Optimised for use in environments where bandwidth usage is not an issue, e.g. data centres

Streaming Backup has the following limitations:

- Supports Delta Blocking only, not Binary Patching
- Does not support resumes
- Provides target de-duplication only, not source de-duplication

Streaming Backup disables certain options:

- Advanced Communications > Concurrent Transfer
- All patching options aside from Mandatory Patching - Streaming Backup only supports Delta Blocking
- Advanced Performance > Backup Limit

To enforce a minimum amount of free space on your hard drive:

To ensure that the Backup Client does not use all available hard drive space during data dumps, patching or compression, you can select the **Enforce minimum free space...** check box, and then specify the amount of free disk space that must remain available.

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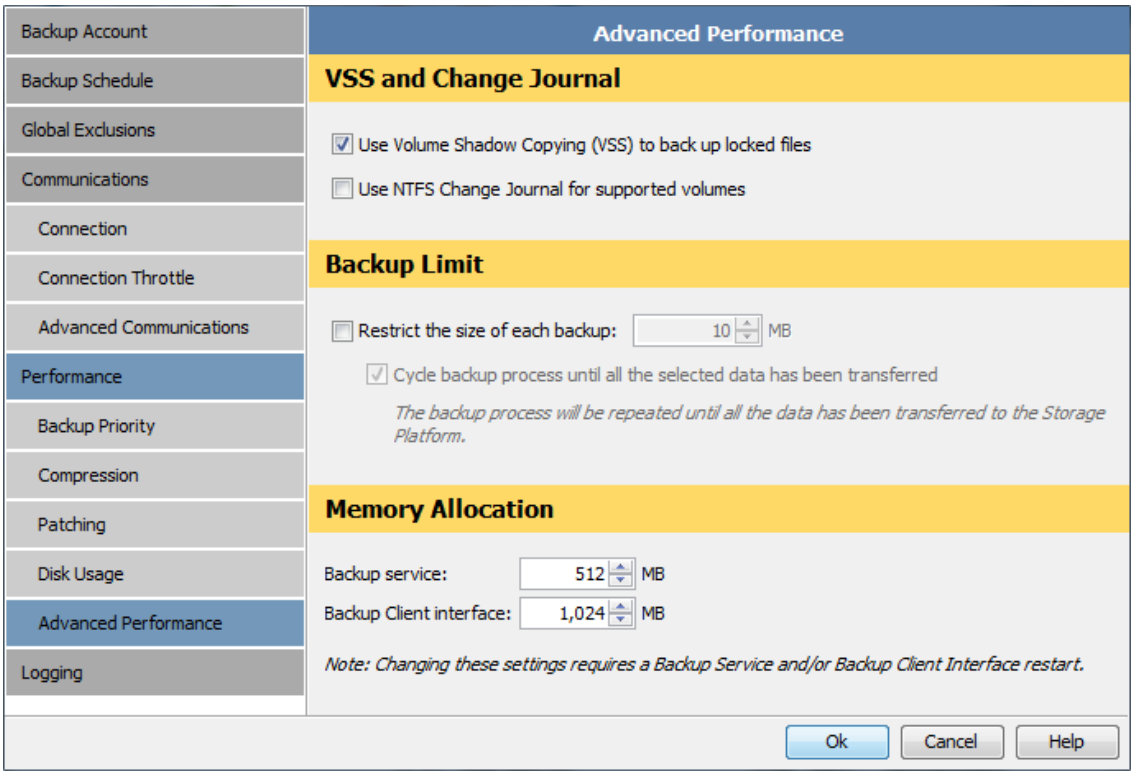
Advanced Performance

You can use the Advanced Performance page in the **Options and Settings** dialog box to configure the settings relating to:

- VSS and Change Journal
- Backup limit
- Memory allocation



The Advanced Performance page in the **Options and Settings** dialog box consists of the following areas:

- VSS and Change Journal
- Backup Limit
- Memory Allocation

VSS and Change Journal area

Use Volume Shadow Copying (VSS) to back up locked files

Microsoft Volume Shadow Copy Service (VSS) provides a solution by creating a snapshot of data at any given point in time without any interruption to any applications. Using this option enables the backup of open or locked files.

Note:

- *For files under heavy use, VSS may increase disk usage during backup. The larger the files, the greater the disk usage.*
- *Please use relevant plug-ins to back up databases.*

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Use NTFS Change Journal for supported volumes

Select this check box to enable the Backup Client to use the NTFS Change Journal to determine the file and folder changes on the drive instead of performing a full scan on the drive before every backup.

Tip: This is especially useful when backing up large selections that would result in lengthy scanning processes.

Backup Limit area

If you wish to limit the total amount of data that may be transferred during each backup, select the **Restrict the size of each backup** check box, and then specify a maximum size in the box provided.

Note:

- *If you enable this option, it may take several backups before all your files are backed up to the SP. This feature is especially useful if you have a poor Internet connection and you encounter problems with transmitting large backups.*
- *All patches will be sent in a single backup regardless of whether a size restriction is specified or not. If backups are set to cycle, the Backup Client will cycle through your full files after all the patches have been transferred.*

Cycle backup process... – You can use this setting in conjunction with the backup size restriction to cycle backups successively until all data included in the backup selection has been transmitted to the Storage Platform. This setting can only be enabled if a backup size restriction has been specified.

Memory Allocation area

Use the **Backup service** and **Backup Client interface** boxes to set the respective memory amounts.

Note: If you change the backup service amount, you will need to restart the backup service before the change takes effect. If you change the Backup Client interface amount, you will need to restart the interface before the change takes effect.

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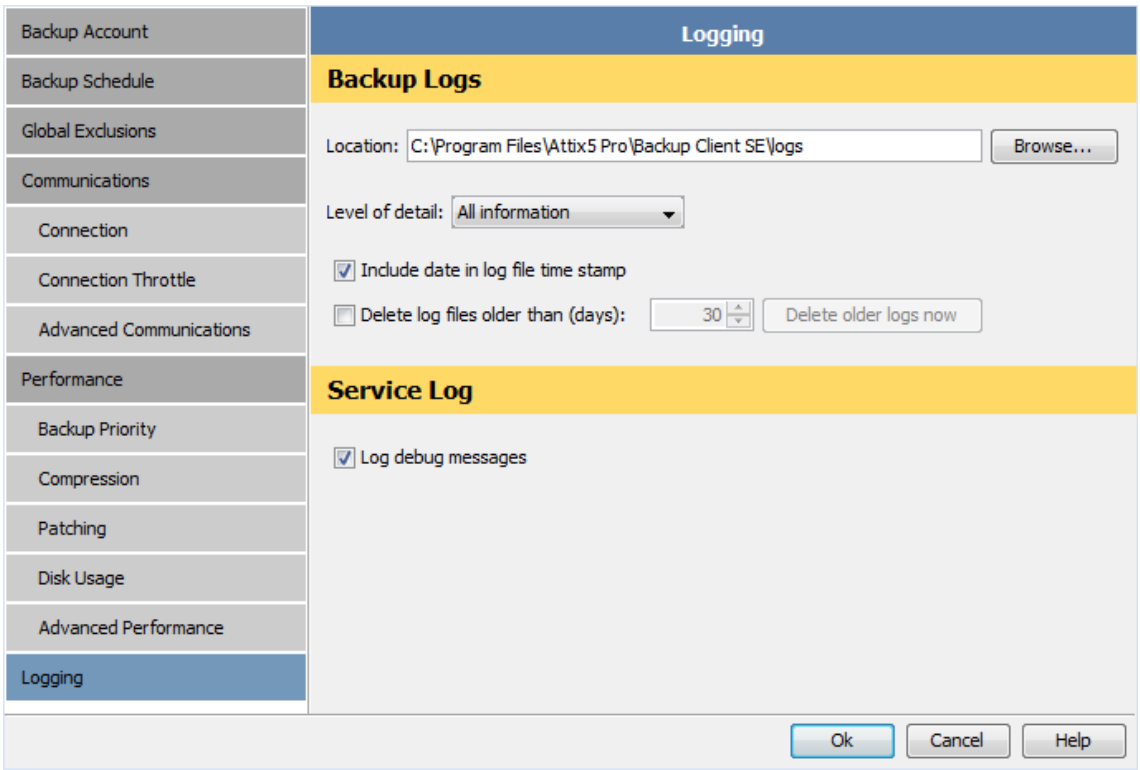
Logging

You can use the Logging page in the **Options and Settings** dialog box to specify your logging preferences.

Modifiable logging settings include:

- Location of backup and restore logs
- Level of detail included
- Date inclusion/exclusion in time stamp
- Log file retention period
- Debug message inclusion/exclusion in service log



The Logging page in the **Options and Settings** dialog box consists of the following areas:

- Backup Logs
- Service Log

Backup Logs area

In this area, you can specify where to store the backup and restore logs, as well as the level of detail to be displayed in them. You can also select the **Include date in log file time stamp** check box to add the date to every line in each log file.

You can also enable a log file retention period by specifying that the Backup Client delete files older than a particular number of days. To do this, select the **Delete log files older than (days)** check box, and then specify the number of days in the box provided.

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*Tip: To delete all logs older than the specified number of days immediately, click the **Delete older logs now** button.*

Service Log area

In this area, you can specify whether or not debug messages should be logged.

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Advanced tools

SE includes tools that allow advanced users to modify, enhance and streamline the Backup Client.

Add network volume

The Backup Client provides the option to add network volumes and include files located in these locations to the backup selection.

Warning: Please ensure that the backup service is started by a user with sufficient permissions to browse and access the network shares to be included in the backup selection.

The Backup Client will only be able to back up files from a network volume after the share has been accessed and authenticated by the server on which the Backup Client is installed.

To add a network volume:

1. On the Tools menu, click Add Network Volume.
2. In the **UNC Path** box, type the UNC network path, starting with "\\". Alternatively, use the **Browse** button to browse to the network path.

   Example: ||storageserver|documents

On the **Backup Selection** tab, network volumes are listed in the left-hand pane, accompanied by a network icon .

Files in the network volume can now be included or excluded. (For more information on how to include and exclude files, see S*electing data to back up* in Chapter 6, "Backups"):

- If some files are included for backup, the icon will display with a green tint: .
- If the entire share is included it will change to a green icon: .
- Excluded network volumes are marked with red network icons: .

To remove a network volume from the Backup Client:

1. Right-click on the entry in the left-hand pane.
2. Click Remove Network Volume.

The network volume will be removed from the left-hand pane.

Remote Management

Remote Management enables the Backup Administrator to remotely access and configure the Backup Client using the Storage Platform Console.

To enable Remote Management:

1. On the Tools menu, click Remote Management.

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2. In the **Remote Management Settings** dialog box that appears, select the **Enable Remote Management** check box.
3. In the Connection area, ensure that the port number in the **Port** box is correct (9091 is specified by default). If incorrect, modify as required.
4. If the server has multiple IP addresses available, you can specify whether the Remote Service must bind to all available IP addresses or to only one IP address.
5. In the Access area, select the access credentials to be allowed.

   Note:
   - ***Allow SP controlled access*** *enables Backup Administrators with the correct access permissions to use their Storage Platform User Access Management usernames and passwords to connect to and administer this Backup Client. If you clear this check box, Storage Platform administrators will not have remote access.*
   - *Select* ***Allow custom access*** *and supply a username and password if you do not wish to make use of the above-mentioned Storage Platform Access Accounts. These custom access credentials must be specified in the Storage Platform Console for its user to gain remote access.*
6. Click **OK** to save the settings. Services will restart automatically to apply the settings.

Note: You can use the command-line interface (CLI) to enable SE Remote Management and to send a wide range of backup and restore commands. For more information, see "Command-line backups and restores" later in this chapter.

Multiple backup sets

When a backup is initiated, the backup selection is sent to the Storage Platform as a "backup set"; a set of *included* files and folders. You can restore the entire backup set (all its files and folders structured as they were at the time of backup), or restore individual files and/or folders within it.

The first backup selection you make in the SE Client is automatically saved as the "default backup set". For more information, see *Selecting data to back up* in Chapter 6, "Backups". You may, however, create more than one backup set. This enables you to back up different data selections at different times.

Example: A full backup of all data on a server can be scheduled to run once a week (e.g. over the weekend, when there are no resource limitations) and another backup of only the SQL database on that same server can be scheduled to run every day. This ensures that the SQL database is backed up regularly, using minimal resources, and that the entire server is still backed up but at more convenient and practical time intervals.

Note: A maximum of 10 backup sets are allowed (including the default backup set).

To create a new backup set:

1. On the **Tools** menu, point to **Additional Backup Sets** and then click **Add**. Alternatively, click the **Add** button above the **Backup Selection**/**Restore**/**Logs** tabs.

   Note: The ***Add*** *button will only be available above the Client tabs when at least two backup sets exist. If this is your first addition, you need to use the* ***Tools*** *menu.*
2. In the **Backup set name** box, type a display name for the set, and then click **OK**.
3. Ensure that the new name is selected in the **Backup set** drop-down box.

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4. Configure the schedule as desired. For detailed instructions on how to schedule backups, see *Scheduling automatic backups* in Chapter 6, "Backups".

   Note: If backup set schedules overlap due to manual schedule configuration or overlapping backup windows, the backups will be placed in a queue. Three seconds after the first backup in the queue is complete, the next will run. Backup sets are queued alphanumerically. If, however, two or more backups are scheduled for the same backup set and their backup windows overlap, the first backup will run to completion and duplicates will be excluded from the queue.

5. Click **OK**. The **Options and Settings** dialog box will close and the SE Backup Client will display the new backup set name in a **Backup set** drop-down box above the **Backup Selection** tab.

   Note: *The **Backup set** drop-down and **Add** and **Schedule** buttons only display in the SE Backup Client if more than one backup set is enabled. If only the default backup set exists, these items will not display.*

   The **Backup Selection**, **Restore** and **Logs** tabs now display information relevant to the new backup set and they can be used to configure, restore from and monitor it accordingly.

6. Select the data to be backed up in this backup set.

Included data will be backed up at the times specified in the backup set's backup schedule and can be restored using the **Restore** tab.

To rename a backup set:

1. Click the **Manage** button above the **Backup Selection**/**Restore**/**Logs** tabs.
2. Select the backup set name in the **Backup set** drop-down list.
3. Click the **Rename** button.
4. Type the new name in the **Backup set name** box.
5. Click **Ok**.

To modify a backup set's backup schedule:

1. Click the **Manage** button above the **Backup Selection**/**Restore**/**Logs** tabs.
2. Select the backup set name in the **Backup set** drop-down list.
3. Configure the schedule. (See *Scheduling automatic backups* in Chapter 6, "Backups".)
4. Click **Ok**.

To delete a backup set:

1. Click the **Manage** button above the **Backup Selection**/**Restore**/**Logs** tabs.
2. Select the backup set name in the **Backup set** drop-down list.
3. Click the **Delete** button.
4. In the Confirmation dialog box that appears, click **Yes**.
5. Click **Ok**.

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Plug-ins and multiple backup sets

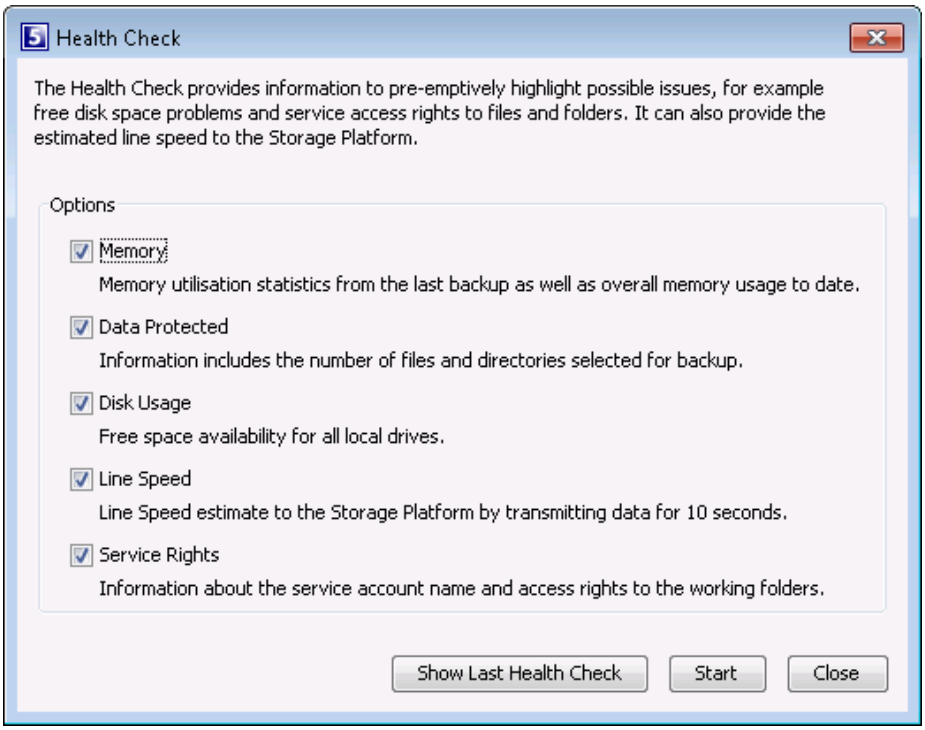
The following plug-ins function only on the default backup set:

- SIMS
- System State
- Script

The following plug-ins function on additional backup sets if they have items included for backup:

- Exchange Single Item Recovery Plus (SIR Plus)
- MS SQL Server
- VMware
- VSS

Health Check


Health Check
The Health Check provides information to pre-emptively highlight possible issues, for example free disk space problems and service access rights to files and folders. It can also provide the estimated line speed to the Storage Platform.
Options
Memory
Memory utilisation statistics from the last backup as well as overall memory usage to date.
Data Protected
Information includes the number of files and directories selected for backup.
Disk Usage
Free space availability for all local drives.
Line Speed
Line Speed estimate to the Storage Platform by transmitting data for 10 seconds.
Service Rights
Information about the service account name and access rights to the working folders.
Show Last Health Check
Start
Close

The Backup Client Health Check provides information to highlight possible issues before backup (e.g. free disk space or file/folder access problems). It can also provide the estimated line speed to the Storage Platform.

The following options are available:

- **Memory** - Memory utilisation statistics from the last backup as well as overall memory usage to date.
- **Data Protected** - Information includes the number of files and directories included in the backup selection.
- **Disk Usage** - Free space availability for all local drives.
- **Line Speed** - Line Speed estimate to the Storage Platform (determined by transmitting data for 10 seconds).
- **Service Rights** - Information about the service account name and access rights to the working folders.

You can specify which checks to run by selecting or clearing the relevant check boxes in the Options area. Use the **Show Last Health Check** button to see the last report. You can **Print** and/or **Export** the Health Check reports.

To run a health check:

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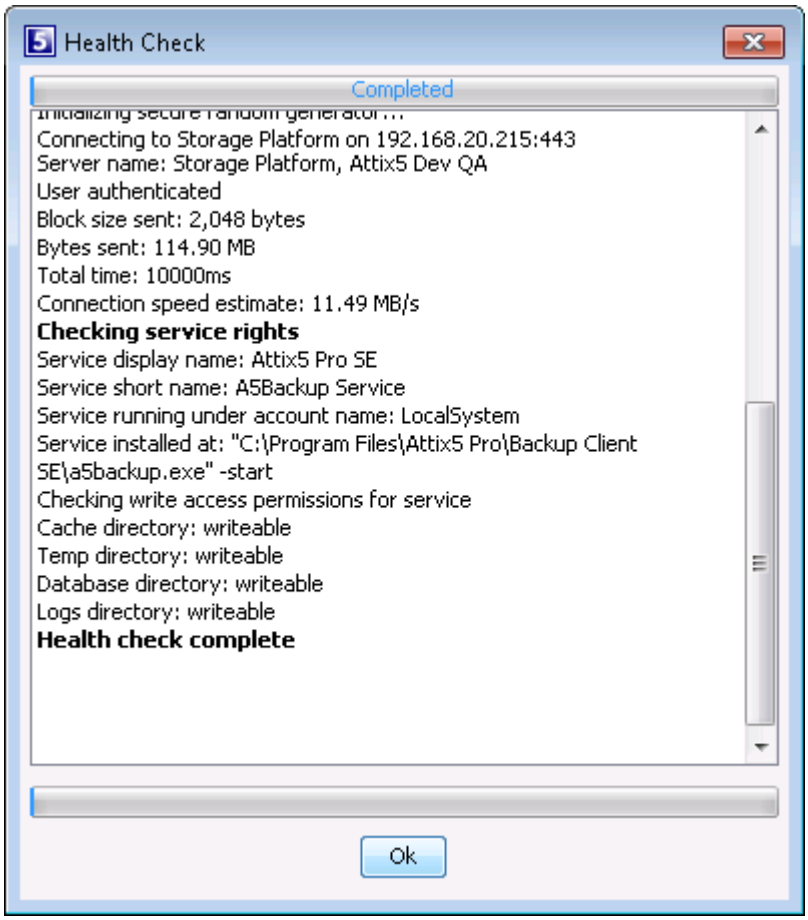
1. On the **Tools** menu, click **Health Check**.
2. In the **Health Check** dialog box that appears, specify which checks to run by selecting or clearing the check boxes next to the options. Five checks are available (see above).
3. Click the **Start** button to begin the health check process. The **Health Check** dialog box appears, displaying the progress of the health check until completion.


Health Check
Completed
Connecting to Storage Platform on 192.168.20.215:443
Server name: Storage Platform, Attix5 Dev QA
User authenticated
Block size sent: 2,048 bytes
Bytes sent: 114.90 MB
Total time: 10000ms
Connection speed estimate: 11.49 MB/s
Checking service rights
Service display name: Attix5 Pro SE
Service short name: A5Backup Service
Service running under account name: LocalSystem
Service installed at: "C:\Program Files\Attix5 Pro\Backup Client SE\a5backup.exe" -start
Checking write access permissions for service
Cache directory: writeable
Temp directory: writeable
Database directory: writeable
Logs directory: writeable
Health check complete
Ok

4. When the message: "Health check complete" displays, click **OK**.

The Health Check results display in a new dialog box with options to print, export to HTML and export to CSV.

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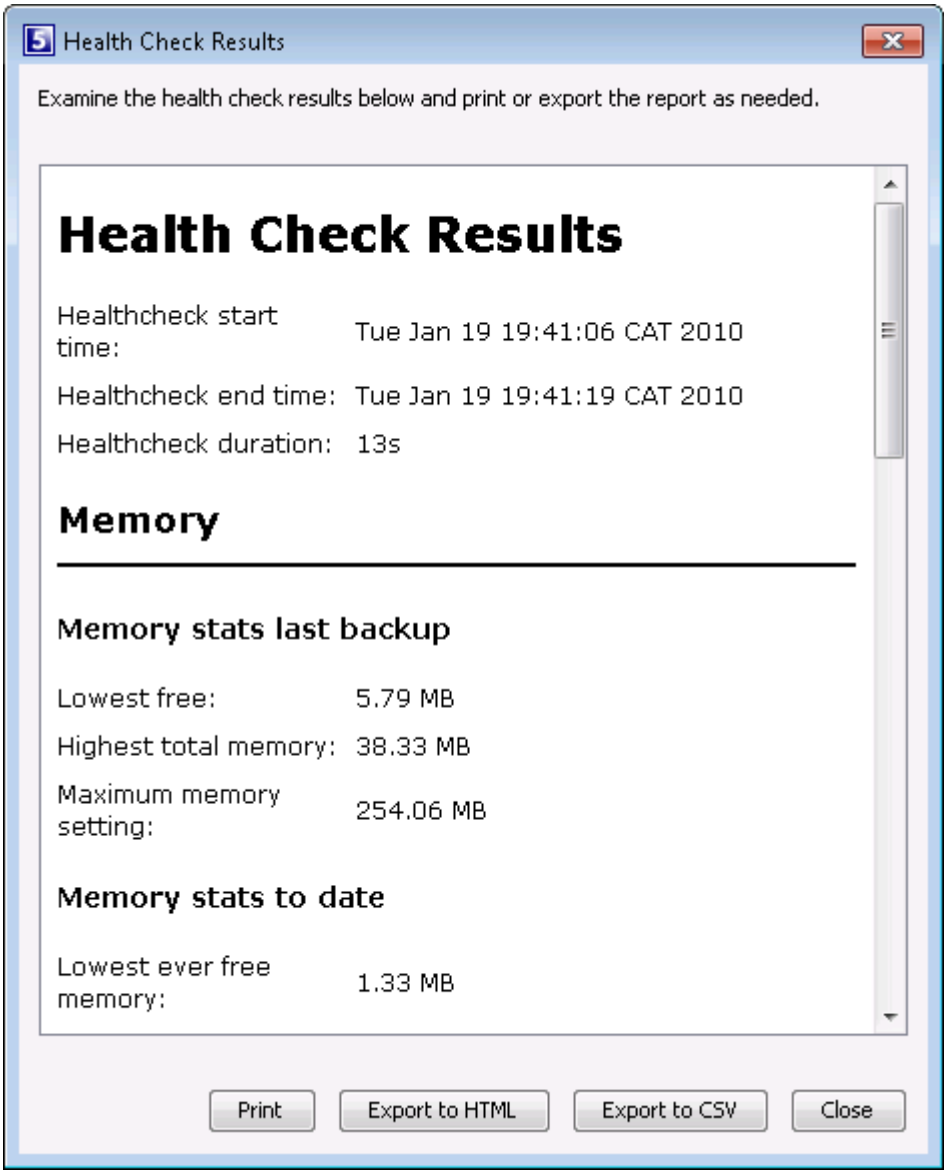
Health Check Results
Examine the health check results below and print or export the report as needed.
Health Check Results
Healthcheck start time: Tue Jan 19 19:41:06 CAT 2010
Healthcheck end time: Tue Jan 19 19:41:19 CAT 2010
Healthcheck duration: 13s
Memory
Memory stats last backup
Lowest free: 5.79 MB
Highest total memory: 38.33 MB
Maximum memory setting: 254.06 MB
Memory stats to date
Lowest ever free memory: 1.33 MB
Print
Export to HTML
Export to CSV
Close

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Backup Snapshots

The Backup Snapshot feature enables you to create a backup of all items included in your backup selection and send it to a disk drive. This snapshot data can then be moved to the Storage Platform.

You can use this feature to reduce the initial backup window if there is a large amount of data to be transferred, typically over a slow Internet/network connection. A similar procedure enables you to restore a large amount of data (e.g. during a disaster recovery). For more information about restore snapshots, see "Restore Snapshots (Disaster recovery)" below.

Note: A snapshot backup uses Blowfish 448 encryption and the backup encryption key to encrypt the data.

Warning:

- *This procedure should only be performed with the assistance of the Backup Administrator.*
- *Ensure that you have an active Backup Account.*
- *It is advised to perform a test backup that transfers only a small amount of data before beginning the Backup Snapshot process.*

To export a Backup Snapshot:

1. On the **Tools** menu, point to **Snapshot**, and then click **Export Backup Snapshot**.
2. Select **The next backup must be a Snapshot backup**. Ensure **Verify snapshot after backup** is selected – this will confirm that the snapshot is not corrupt.

   Warning:
   - *Verifying the snapshot causes the backup process to take significantly longer.*
   - *Cancelling the verification cancels the backup.*
3. Specify a destination in the box provided (**C:\Backups\Export\Snapshot-Backup** is specified by default on Windows Server 2008 machines.)
4. Click **Backup Now**. If you click **OK**, the next backup you initiate will be a snapshot backup.

The Snapshot data is now stored in the location specified in step 3 above and can be moved to the Storage Platform. The Backup Administrator can then import the snapshot data to the StorageServer using the Storage Platform Console. (For more information, please refer to the Storage Platform Console User Manual.)

Note: The Backup Account will be disabled at this point to ensure that the Snapshot data is the most recent. Once the data has been successfully imported to the Storage Platform, the Account will be enabled automatically and backups can proceed as usual.

Restore Snapshots (Disaster recovery)

The Restore Snapshot feature enables you to restore large amounts of data from a locally connected device to a machine via the Backup Client.

Note:

- *Before you can perform the steps outlined below, the snapshot data needs to be exported from the StorageServer to a mobile storage device by a Backup Administrator. For more information, please refer to the Storage Platform Console User Manual.*
- *A snapshot restore uses Blowfish 448 encryption and the backup encryption key to encrypt the data.*

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To restore data from a Snapshot:

1. Connect the mobile storage device containing the snapshot data to the Client machine or to a Local Area Network so that it has access to the Client machine.
2. On the **Tools** menu, point to **Snapshot**, and then click **Import Restore Snapshot**.
3. Select whether you wish to restore the data from a disk drive or recovery server.
    a. If restoring from disk, select the **Show Restore Snapshot(s) in Restore panel** check box and then specify the path to the data in the **Snapshot location** box.

*Note: You need to specify the snapshot data's parent folder, NOT the snapshot folder itself. (E.g. If your snapshot data folder is called **20100506124347** and you've pasted it to your Desktop, you need to specify **C:\|Users\|Administrator\|Desktop** in the **Snapshot location** box, NOT C:\|Users\|Administrator\|Desktop\|20100506124347.)*

*Warning: The default snapshot location specified is: C:\|Backups\|Import\|Snapshot-Restore. If you wish to use this location, you need to create the folder structure on the machine and then paste the snapshot data onto the **Snapshot-Restore** folder. This folder is not created automatically. Alternatively, you can use the **Browse** button to browse to the location in which you have saved the snapshot data.*

    b. If restoring from a recovery server, select the **Do restores from recovery server** check box and then specify the server address and port number in the boxes provided. If using a proxy server, select the **Use proxy settings for recovery** check box.

Note: This option can only be used if the Backup Administrator has prepared a recovery server.

4. Click **OK**.

The Snapshot data will display as an entry in the Restore tree, enabling you to browse a directory of its contents and restore files and folders. For more information, see Chapter 7, "Restores".

Command-line interface

You can use the command-line interface (CLI) to enable SE Remote Management and to send a wide range of backup and restore commands. The CLI.bat file is included with each SE installation file.

Warning: The SE Backup Client is required and must be installed on the computer using the CLI.bat file before the following commands can be used.

In the Command Prompt, run the cli command from the installation folder of the SE Backup Client to view the various CLI options.

Usage:

```
cli {restore|dates|status|backup|cancel|configure|update}
        backup
           [-allowempty]
        restore
```

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```
[-rd restoredateidx] [-rp restorepath | -original]
[-fd filterdate] [-fp filterpath] [-fext filterext]
[-backupset backupsetguid] [-compression on|off] [-overwrite]
      [-nopermissions] [-noemptyfolders]
    configure
       {account|remote}
```

Note:

- *Specify `-allowempty` to allow an empty backup to commence.*
- *`-rp <restorepath>` must be an absolute path and the service must have full write access to the directory.*
- *Creating a new Backup Account via CLI (`cli configure account`) on an existing installation does not delete the contents of the cache folder. The contents must be manually deleted. Alternatively, the cache will be cleaned up after your next backup.*
- *When restoring, the default policy is to skip existing files.*
- *Specify `-overwrite` to overwrite existing files.*
- *Specify `-nopermissions` to not restore file and folder permissions.*
- *Specify `-noemptyfolders` to not restore file empty folders (useful with `-fext`).*

Example:

- *To configure a Backup Account:*

  ```
  cli configure account
  ```

- *To configure Remote Management:*

  ```
  cli configure remote
  ```

- *To start a backup of the default backup set:*

  ```
  cli backup
  ```

- *To start a backup of a specific backup set:*

  ```
  cli backup -backupset ac0be91b-08b2-461d-97618c529f46
  ```

- *To view the status of a task currently being performed by the backup service:*

  ```
  cli status
  ```

- *To start a restore from the last backup made, extracting files to the default restore temporary directory:*

  ```
  cli restore
  ```

- *To view a list of available backup dates to restore from:*

  ```
  cli dates
  ```

- *To restore from a different date index obtained with the dates command:*

  ```
  cli restore -rd 2
  ```

- *To restore all .XLS files starting with the path C:\Documents and Settings and newer than 1 April 2002:*

  ```
  cli restore -fd 04/01/2002 -fext .XLS -fp "C:\Documents and Settings"
  ```

- *To cancel the current running task:*

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```
cli cancel
```

- *To check for and install an update of the Backup Client:*

```
cli update
```

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Profiling

Profiling enables your Backup Administrator to propagate certain client-side settings from the Storage Platform to your Backup Client.

It can be used to enforce the following settings:

- Backup schedules
- Inclusions and exclusions
- Filters
- Most options and settings accessible via the **Tools** menu

Note: Profiled settings take priority over settings specified in the Backup Client.

When the Backup Client connects to the Storage Platform, it receives a list of all profiled settings. These changes are implemented in the Backup Client. You can, however, connect to the Storage Platform and update profiled settings manually.

To update profiled settings manually:

1. On the **Tools** menu, click **Options**.
2. On the **Backup Account** page of the **Options and Settings** dialog box, click the **Retrieve settings** button.

The Backup Client will retrieve any profiled settings from the Storage Platform and update its options and settings accordingly.

Note: Profiled settings are greyed out, and cannot be modified from within the Backup Client.

Inclusions /exclusions applied by profiling are displayed with yellow icons in the Backup Client.

File icons:

Included file

File included by filter

Excluded file

Folder icons:

Included folder

Folder included by filter

Excluded folder

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Microsoft NTFS Change Journal use

The Microsoft Windows NTFS Change Journal keeps track of every change made to files and/or directories on an NTFS volume from one point in time to another.

The Backup Client can use this Change Journal to determine the changes made to a volume since the last backup. This enables it to skip the process of scanning all files and directories before initiating the backup.

Tip: This is especially useful when backing up a large selection that would result in a lengthy scanning process.

*Example: If you have thousands of files selected for backup and would like to do a successive backup after having changed only one file, with **Use NTFS Change Journal for supported volumes** enabled, the Client will not need to scan through all the files to find the change and can start the backup immediately after obtaining the change record from the Change Journal instead.*

Note: This feature can only be used on NTFS-formatted drives and is therefore not supported on MAC or Linux.

Limitations

In the following instances, the Backup Client will *not* use the Change Journal and will revert to performing normal scans instead:

- If junction points are used (when a folder points to another folder on a different drive).
- If the backup selection changes. (Changing your backup selection results in NTFS not seeing a change on your drive, so the Backup Client will have to rebuild the index. The Backup Client will only be able to use the Change Journal from the next backup onwards.)
- If the Change Journal logs an error.
- If the Change Journal wraps and overwrites entries.

Enabling/disabling NTFS Change Journal use:

1. Click the **Options** button on the toolbar, and then click **Advanced Performance**.
2. In the VSS and Change Journal area, select/clear the **Use NTFS Change Journal for supported volumes** check box.
3. Click **OK**.

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10. Plug-ins

Attix5 Pro Server Edition provides solutions for numerous databases and applications in the form of plug-ins to the Backup Client.

This User Manual includes instructions for the Email Notification and System State plug-ins, as they are distributed with the SE Backup Client. Please refer to the Attix5 Pro Server Edition Plug-ins User Manual for detailed information on the other available plug-ins and settings.

Email Notification plug-in

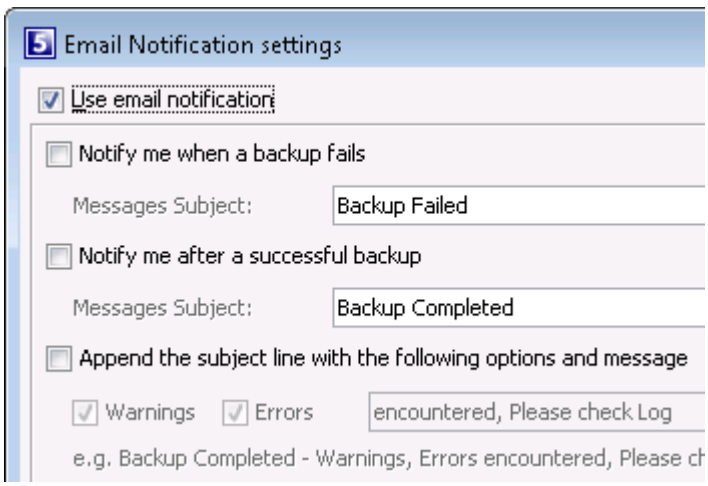
The Email Notification plug-in enables you to receive email notification on backup activity. You can configure the plug-in to send emails to specified email addresses, notifying the recipients of the status of backups.

Note:

- *This plug-in has been included in SE installers since v4.2. If it is not installed, run the Plug-in Installer and select the Email Notification plug-in.*
- *The Plug-in Installer will run automatically during the SE Client installation if located in the same folder as the Client MSI.*

To configure the email notification plug-in:

1. On the **Tools** menu, point to **Plug-ins**, and then click **Email Notification**.
2. Select the **Use email notification** check box to enable the plug-in.



3. Select the types of notifications to be emailed. The following options are available:
   - Notify me when a backup fails
   - Notify me after a successful backup
   - Append the subject line with the following options and message:
     - Warnings
     - Errors

Note:

- *You can modify the Email subjects and content by clicking in the **Messages Subject** and **Warnings/Errors** boxes, and then editing the text.*
- *The Backup Account name is automatically included in the subject, e.g. "Backup Completed [Backup Account name]".*

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4. In the Mail settings area, type **To** and **From** email addresses in the fields provided and supply the SMTP server address and authentication information if necessary.

Tip:
*In the **SMTP Server** box, you can specify the SMTP Server name in isolation (e.g. mail.attix5.com)*
or you can include the port number (e.g. mail.attix5.com:80).
When no port is specified, 25 will be used by default.

Note:
- *You can modify the Email subjects and content by clicking in the **Messages Subject** and **Warnings/Errors** boxes, and then editing the text.*
- *The Backup Account name is automatically included in the subject, e.g. "Backup Completed [Backup Account name]".*

5. Select **Enable STARTTLS** to establish a secure connection to an online mail service like Gmail.
6. Click the **Test** button to verify that the settings are correct. A test email will be sent to the address specified in the **To** box and a message will appear confirming if the email was sent successfully. Click **OK** to close the message and return to the **Email Notification settings** dialog box.
7. Select the **Attach files** check box to include a log file and/or backup selection report as attachments.
8. In the Attachment settings area, select from the following options:
    - Summary, warnings and errors
    - Entire log file (as per Advanced Options log level setting)
    - **Backup selection report** – Provides a summary of the backup selection
9. Click **Ok** to save the settings and close the **Email Notification settings** dialog box.

The Email Notification plug-in is now activated and configured and will start emailing reports during the next backup.

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System State plug-in

When the System State plug-in is selected for installation, two plug-ins are actually installed. The plug-in used to perform a System State backup or restore depends on the operating system that it's installed on:

- System State (using WSB) for Windows 2008 and later
- System State (using NTBackup) for operating systems prior to Windows 2008

Note:

- *The VSS plug-in sometimes picks up a System State writer. This writer is not supported and should not be used. For System State backup and restore, use the System State plug-in.*
- *System State for Windows Server 2008 requires .NET 3.5. System State for Windows Server 2012 requires .NET 4.*

Installation

To install the plug-ins, run the Plug-in Installer and follow the steps outlined below to completion.

Note:

- *The Attix5 Pro Server Edition Client must be installed on the computer before you can install any plug-ins.*
- *SE plug-ins require working space for the cache and disk space for creating a data dump and patches.*

Step 1: Specify Backup Client folder location

1. Ensure that the correct Backup Client folder location is selected. If not, click the **Browse** button, select the correct folder, and then click **OK**.
2. Click **Next**.

Step 2: Modify plug-in selection

1. Select the **System State** check box.
2. Click **Next**.

Step 3: Apply changes

On the Summary page, click the **Apply requested changes** button, and then click **Next**.

Step 4: Close the Plug-in Installer

Click **Finish** to close the Plug-in Installer.

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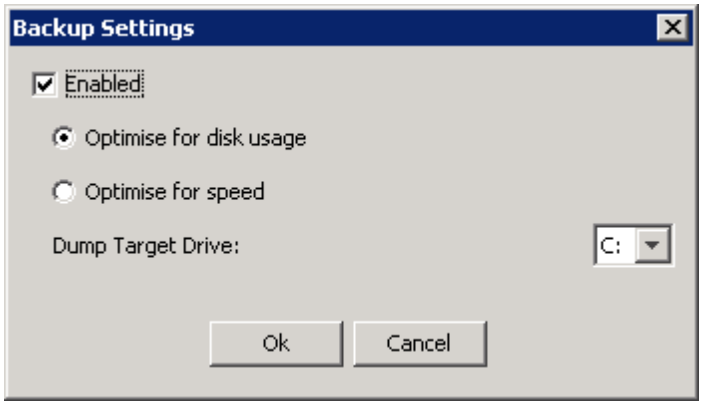
System State (using WSB) for Windows 2008 and later

Note:

- *On a new Windows Server 2008 R2 installation, Windows Server Backup Features are not installed by default. To install Windows Server backup and recovery tools, follow the instructions as specified by Microsoft: http://technet.microsoft.com/en-us/library/cc732081.aspx.*
- ***Space requirement for Optimise for speed option:** Because the WSB plug-in splits the VHD into separate files when the **Optimise for speed** option is selected, the drive where the System State backup is stored needs to have enough space for two copies of the System State backup. For example, if the System State backup is 8 GB, a drive with at least 16 GB of space is required.*

Configuration

1. On the **Tools** menu, point to **Plug-ins**, and then click **System State (using WSB)**.
2. In the **Backup Settings** dialog box that appears, select the **Enabled** check box.



3. The **Optimise for disk usage** option is selected by default. This ensures that the plug-in only uses as much disk space as the VHD, plus a small amount for workspace (potentially as large as the largest file in the VHD). Select **Optimise for speed** if disk space is not an issue and you would like to improve the backup speed.

   Note: Optimise for disk space reduces the disk space usage by between 30% and 50%.

4. Select a dump target drive.

   Note: A System State backup can be over 10 GB large. Ensure that you choose a drive with enough disk space.

5. Click **Ok**.

Backup

Once the plug-in is enabled, you can select other data to back up, and then schedule backups or initiate one manually by clicking the **Backup** button on the toolbar.

Warning: If installed on a Windows 2008 server, the plug-in will also back up Remote Installation server images. These are included in the backup selection and can inflate the backup significantly.

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Tip: While the backup is in progress, it is useful to monitor its status in detail. To do this, open a Command Prompt window and run the following command:

```
Wbadmin get status
```

Note: The plug-in will abort the backup if it runs out of disk space.

Restore process

To restore the System State via WSB, you need to restore the System State data to its original location and then launch the Windows Server Backup restore process via the command prompt.

To restore System State data:

1. In the Backup Client, click the **Restore** tab.
2. Under the System State Backup target drive node, navigate to the **WindowsImageBackup** folder.
3. Right click the folder name, and then click **Include**.
4. Click the **Restore** button on the toolbar.
5. In the Save files in area of the Restore Options dialog box, select Original location.
6. Click **Ok**.
7. Once the contents of the **WindowsImageBackup** files are restored to their original locations, you can invoke the Windows Server Backup tool to complete the restore process.

To launch the Windows Server Backup restore process:

1. In Windows Explorer, navigate to:

   <System State Backup target drive>\WindowsImageBackup\<Machine Name>\SystemStateBackup.
2. Open the **restore.txt** file and follow the instructions contained therein.

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System State (using NTBackup) for operating systems prior to Windows 2008

The Attix5 Pro System State plug-in enables you to back up a collection of system-specific components as a unit to a target directory that is automatically included in the daily backup routine. These components include the following (depending on the operating system):

- Boot files, including system files, and all files protected by Windows File Protection (WFP)
- The registry.
- COM+ Class Registration database
- Active Directory
- SYSVOL directory

This plug-in is included in the SE installer. If it is not installed, run the Attix5 Pro Plug-in Installer and select **the System State Backup plug-in**. After the installation, open the SE Client application window.

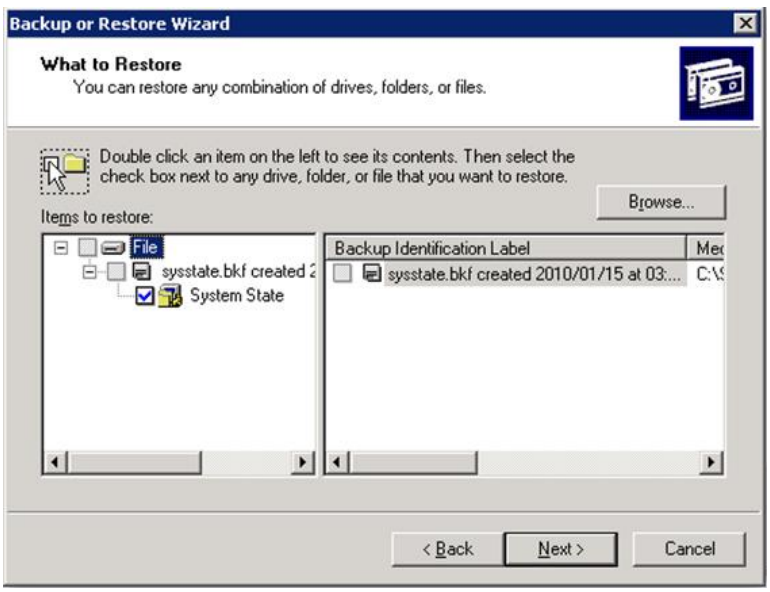
Note: This plug-in is used for Windows Server 2003 only.

Installation and configuration

Windows Server 2003

1. On the **Tools** menu, point to **Plug-ins**, and then click **System State**.
2. In the **System State Backup** dialog box that appears, select the **Enable System State backups** check box.
3. A local target folder is required to create the System State backup. Type the path to a folder in the **Backup to** box or use the **Browse** button to specify it, and then click **OK**. If the target folder does not exist, the SE Client will display a message asking if it should create the folder. Click **Yes**. This folder will be included in the backup selection list automatically.

The System State plug-in is initiated at the beginning of each backup and uses Windows Backup and Recovery tools to create the backup file. SE continues with the rest of the backup procedure after the System State backup has been saved in the specified target folder.


Backup or Restore Wizard
What to Restore
You can restore any combination of drives, folders, or files.
Double click an item on the left to see its contents. Then select the check box next to any drive, folder, or file that you want to restore.
Browse...
Items to restore:
File
sysstate.bkf created 2
System State
Backup Identification Label
sysstate.bkf created 2010/01/15 at 03:...
< Back
Next >
Cancel

Restore process

Windows Server 2003 (complete recovery):

1. Click the **Restore** tab in the Backup Client.
2. Expand the backup date folder to restore from in the left-hand pane and restore the **sysstate.bkf** file located in the target folder.

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3. Open the Windows Backup and Recovery application (Start > All Programs > Accessories > System Tools > Backup).
4. If the Restore Wizard does not appear by default, click **Restore Wizard** on the **Tools** menu. In the **Restore Wizard**, click **Next** to proceed to the **Backup or Restore** step.
5. Select Restore files and settings, and then click Next.
6. Browse to the restored **sysstate.bkf** file. (The default restore location is C:\SystemState.)
7. In the left-hand pane, expand **File > sysstate.bkf created**, and then select the **System State** check box.
8. Click **Next,** and then click **Finish** to complete the Restore Wizard.

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11. Reference

Keyboard shortcuts and hotkeys

Keys	Action
F5	Refresh active window
SPACEBAR x1	Include selected file/folder
SPACEBAR x2	Exclude selected file/folder
SPACEBAR x3	Clear inclusion/exclusion
SHIFT+↑/↓	Select multiple files
ALT+Underlined letter on menu bar	Open the corresponding menu
↑	Select previous item, or scroll up if you are in the Logs tab
↓	Select previous item, or scroll down if you are in the Logs tab
Page Up	Scroll up one page
Page Down	Scroll down one page
Home	Scroll to the beginning of the page if you are in the Logs tab
End	Scroll to the end of the page if you are in the Logs tab

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